Statistical Report

DEPARTMENT OF HEALTH
STATE OF HAWAII

1986

STATISTICAL SUPPLEMENT

DEPARTMENT OF HEALTH

STATE OF HAWAII

This is the statistical supplement to the narrative report published in a separate volume.

Anyone needing additional information may write directly to the program concerned.

1986*

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Cover photo by George H. Tokuyama, State Registrar
Cattleya orchid in full bloom at the annual Hawaii State Fair, Honolulu, Hawaii

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*Unless otherwise stated, data included in this report are for the calendar year 1986. Publication date, September 1987.

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RESEARCH AND STATISTICS OFFICE

VITAL STATISTICS SUMMARY, 1986

POPULATION

The population of the state of Hawaii increased by 1.0 percent from the corrected 1985 total of 1,051,481 to the 1986 total of 1,062,344. The 1986 total was 10.1 percent above the April 1, 1980 census total of 964,691.

Kauai County's population appeared to have grown the fastest with a gain of 3.8 percent between 1985 and 1986. Between 1980 and 1986, Maui County posted a gain of 23.1 percent, followed by Hawaii County (19.8 percent), Kauai County (18.6 percent) and Honolulu County (7.3 percent).

LIVE BIRTHS

The total number of live births recorded for the state of Hawaii in 1986 leveled off to the 18,341 mark after reaching a high of 19,164 births reached in 1983. The total of 18,341 live births for 1986 was less than one-tenth of one percent above the 18,329 live births recorded for 1985.

The number of babies born to residents of the state totaled 18,253 or 17.2 per 1,000 resident population. The comparable figures for 1985 were 18,267 births and a crude birth rate of 17.3 per 1,000 population.

The total number of births occurring in the resident military community in 1986 was 3,923 as compared to 4,043 in 1985. The crude live birth rate for the military community was 31.6 per 1,000 population in 1986 and 33.5 in 1985.

The number of births occurring in the resident civilian resident community was 14,330 in 1986 and 14,286 in 1985. The crude birth rate for the civilian community was 15.3 in 1986 and 13.9 in 1985.

The 1986 crude live birth rate of 17.7 for Kauai County and 17.8 for Maui County were above the state rate of 17.3 while the rate of 16.3 for Hawaii County was below the state rate of 17.2. The rate for Honolulu County was the same as the rate for the state as a whole.

Of the 18,253 resident live births recorded for the state, 77.1% occurred to Honolulu County residents. Based on race of the child, 5,609 were assigned to the Part Hawaiian group, 4,279 to the Caucasian group, 2,747 to the Filipino group and 2,360 to the Japanese group. Based on the race of the mother, 5,615 were assigned to the Caucasian group, 4,044 to the Part Hawaiian group, 2,983 to the Filipino group, and 2,470 to the Japanese group.

MULTIPLE LIVE BIRTHS

There were 366 multiple births recorded during 1986 for the state of Hawaii as compared to 325 such births for 1985.

There were 175 sets of twins where both twins were born alive and 6 sets of twins where one twin was a fetal death. For 1985, the comparable figures were 161 sets of twins where both were born alive and 3 sets of twins where one twin was a fetal death.

There were 2 sets of triplets and one set of quadruplets born in 1986 as compared to no triplets or quadruplets in 1985.

LOW BIRTHWEIGHT BIRTHS

Of the 17,895 resident single live births recorded for 1986, 1,084 or 6.1 percent weighed 2500 grams or less and designated as low birthweight babies. The comparable figures for 1985 were 1,042 and 5.9 percent.

Among the 9,211 single male live births, 5.7 percent weighed 2500 grams or less while among the 8,684 single female live births 6.4 percent weighed 2500 grams or less.

ATTENDANT AT BIRTH

Of 18,341 live births occurring in the state in 1987, 221 or 1.2 percent were born outside of a hospital or institution. However, of the 221 babies, 14 were delivered by a physician, 7 by a midwife and 5 by a naturopath. The remaining 195 were delivered by a family member or some other non-medical person.

MONTH OF PRENATAL VISIT

A total of 13,937 out of 18,253 resident mothers, or 76.4 percent first visited their physicians during the first three months of their pregnancy. Another 17.3 percent of mothers saw their physician for their first prenatal visit between the fourth and sixth months of their pregnancies while only 4.1 percent of the mothers saw their physician for the first time during the third trimester. Only 143 mothers, or .8 of 1 percent of the mothers had no prenatal visit at all. This category of mothers numbered 130 in 1985 and 102 in 1984.

MEDIAN AGE OF PARENTS

The median age of parents of babies born in 1986 was 26 years for mothers and 29 years for fathers.

The comparable figures for 1985 were identical to those of 1986.

For the year 1980, the median age for fathers was 29 years and 25 years for mothers.

SEX RATIO OF LIVE BIRTHS

The sex ratio or the ratio of male babies to female babies was 105.7 for 1986 as compared with 108.2 for 1985. The sex ratio among the larger ethnic groups ranged from 95.7 for Chinese babies to 123.0 Negro babies.

CONGENITAL MALFORMATION

Of the 18,253 resident live births, 203 babies, or 1.1 percent had mention of one or more malformations. There were 26 cases of malformation of the bone and joint; 25 cases involving the circulatory system; 17 cases of cleft palate and hairlip; 15 cases of malformation of the genito-urinary system; and 12 cases of multiple anamolies.

Among the well known congenital malformations, there were 4 cases of spina bifida; 5 cases of clubfoot; 9 cases of Down's Syndrome; and 7 cases of hydrocephalus.

APGAR SCORE

The apgar score is a summary measure used to evaluate the new born infant's overall physical condition at birth.

In 1986, 22.4 percent of the one minute scores and 87.6 percent of the five minute scores were nine or ten on a scale of zero to ten. The comparable scores for the United States as a whole for 1982, which are the latest available, were 44.0 percent and 87.3 percent respectively.

For 1986, 2.4 percent of the babies born in the state were assigned 1-minute apgar scores of 0 to 3, and .4 of 1 percent were assigned 5-minute apgar scores of 0 to 3. Scores of 0 to 3 indicate a severely depressed status.

ILLEGITIMATE BIRTHS

The 1986 resident illegitimate birth ratio for the state of Hawaii was 204.2 per 1,000 live births as compared to 199.8 per 1,000 live births for 1985. These ratios corresponded to 20.4 percent of 1986 births and 20.0 percent of 1985 births being illegitimate.

Counties with resident illegitimate live birth ratios above the state ratio of 204.2 per 1,000 live births were Hawaii County (291.1); Maui County (253.8) and Kauai County (234.8). The ratio for Honolulu County was 185.9 per 1,000 live births.

The highest illegitimate birth ratios were observed among the Hawaiians (445.3 per 1,000 live births), Part Hawaiians (400.8 per 1,000 live births), Samoans (322.9 per 1,000 live births), and Portuguese (298.6 per 1,000 live births). The lowest illegitimate live birth ratios were observed among the Chinese (60.2 per 1,000 live births), Koreans (92.8 per 1,000 live births), Japanese (93.9 per 1,000 live births) and Caucasians (127.0 per 1,000 live births).

The illegitimate birth ratio ranged downward from a high of 944.4 per 1,000 among women in the under 15 age group to 82.3 per 1,000 live births among the women 35-39 years of age. Thereafter, the ratio was 104.2 for women 40-44 years of age and one in three for women in the 45-49 age group.

DEATHS

A total of 6,171 deaths occurred in the state during 1986 as compared to 6,116 deaths occurring in 1985. Resident deaths totaled 5,788 for 1986, slightly higher than the 5,751 deaths recorded for 1985. The non-resident deaths totaled 383 for 1986 and 365 for 1985.

The resident crude death rate was 5.4 per 1,000 resident population for 1986 and 5.5 for 1985. The crude death rate for the United States for 1986 was 8.6 per 1,000 population.

The crude death rate was 6.5 per 1,000 resident population for Hawaii County, 6.8 for Kauai County, 5.8 for Maui County and 5.2 for Honolulu County. The comparable crude death rates for 1985 was 6.6, 5.7, 5.7 and 5.3 for the respective counties.

The median age at death was 71.8 years for the state for 1986, 71.9 years for 1985 and 67.9 years for 1976.

LEADING CAUSES OF DEATH

There were no changes in the first seven leading causes of death in 1986 when compared with 1985. Diseases of the heart, with a death rate of 177.9 per 1,000 resident population accounted for 32.7 percent of all deaths while malignant neoplasms of all types with a death rate of 131.4 accounted for 24.2 percent of all deaths.

Causes of death categories which showed sizeable decreases in death rate from 10 years ago included cerebrovascular diseases (19.1%), homicides (31.3%), all accidents (42.9%), and liver diseases and cirrhosis (24.7%). Causes of death categories which showed sizeable increases included malignant neoplasms (18.6%) and other circulatory diseases (35.3%).

Among the 5-14 year age group, malignant neoplasms and accidents of all types were the leading causes of death.

Among the 15-24 year old group, accidents of all types was the leading cause of death followed by suicides.

Among the 25-34 years of age group, the leading cause of death was all accidents, followed by suicides, diseases of the heart, malignant neoplasms, and homicides.

STANDARD FETAL DEATHS

The resident standard fetal death ratio for the state was 77.3 per 1,000 live births for 1986 and 80.6 for 1985, a reduction of 4.1 percent. The ratios were based on 1,411 resident standard fetal deaths recorded in 1986 and 1,473 in 1985.

High ratios were observed in Hawaii County (81.1 per 1,000 live births), Kauai County (99.8), and 92.5 in Maui County. Honolulu County had a ratio of 73.8 per 1,000 live births.

Among the larger ethnic groups, the standard fetal death ratio was 79.7 per 1,000 live births for Filipino women, 51.5 for Part-Hawaiian women, 83.9 for Japanese women, and 99.1 for Caucasian women.

ELECTIVE INDUCED ABORTIONS

The resident elective induced abortion (intentional termination of pregnancy) ratio for the state of Hawaii for 1986 was 306.3 per 1,000 live births, 9.8 percent above the 310.4 ratio for 1985. The number of resident elective induced abortions totaled 5,647 in 1986 and 5,670 in 1985.

The abortion ratio for the United States was 360.8 per 1,000 live births in 1983 and 373.5 in 1982.

Elective induced abortion ratios above the state average were found in Honolulu County (326.9 per 1,000 live births), and Honolulu City (491.5 per 1,000 live births).

Counties with ratios below the state average were Hawaii County (164.4) and Kauai County (259.1). Maui County experienced a dramatic increase in its abortion rate, climbing from 252.2 in 1985 to 345.1 in 1986.

The median age of women having an elective induced abortion was 24.2 years in 1985 and 24.4 years in 1986.

RESIDENT INFANT DEATHS

The resident infant death rate continued to fluctuate from year to year. The resident infant death rate for the state of Hawaii was 9.2 per 1,000 live births for 1986, 8.7 in 1985, and 9.2 in 1984.

There were 168 resident infant deaths occurring in 1986, 159 deaths in 1985, and 186 deaths in 1984.

For the United States the infant death rate was 10.6 per 1,000 live births in 1985.

The highest 1986 infant death rate was observed in Honolulu County (9.9 per 1,000 live births) and the lowest in Maui County (6.4 per 1,000 live births). The 1986 infant death rate was 6.7 for Hawaii County and 7.3 for Kauai County. Among the major ethnic groups, based on the race of the mother, the higher rates were found among the Part Hawaiians (10.6 per 1,000 live births), the Japanese (9.3), and the Chinese (9.0), while low rates were observed among the Caucasians (5.7 per 1,000 live births) and the Filipinos (8.0).

The infant death rate was the highest among mothers in the 15-17 age group (26.6 per 1,000 live births) and in the 35-39 age group (13.2 per 1,000 live births).

The 1986 statewide infant death rate for babies under 7 days was 5.6 per 1,000 live births.

The neonatal death rate was 6.4 per 1,000 live births.

PERINATAL MORTALITY RATE

The 1986 resident perinatal mortality rate (infant deaths under one week of age plus standard fetal deaths of 20 weeks or more gestation divided by perinatal events--the sum of standard fetal deaths of 20 weeks or more gestation and all resident live births) for the state was 14.5 per 1,000 perinatal events. For 1985, the comparable rate was 12.8 per 1,000 perinatal events. The increase was due to an increase in the number of perinatal deaths.

MATERNAL DEATHS

There was one resident maternal death recorded for the state of Hawaii in 1986, giving a rate of .5 per 10,000 live births. Two maternal deaths (1.1 maternal deaths per 10,000 live births) were recorded in 1985 as well as in 1984.

MARRIAGES

The number of marriages performed in the state in 1986 continued its record pace with 16,219 marriages recorded for the year as compared to 15,421 recorded the year before, a gain of 5.2 percent.

The crude marriage rate was 15.3 per 1,000 population in 1986 and 14.6 in 1985. The adjusted resident marriage rate after deducting 7,000 marriages of out-of-state couples was 8.7 per 1,000 resident population. The marriage rate for the nation as a whole was 10.2 per 1,000 population in 1985 and 10.5 in 1984.

Geographic areas with crude marriage rates above the state average included Kauai County (49.6 marriages per 1,000 population), and Maui County (29.5).

The out marriage rate for all marriages was 30.7 percent but the rate was 46.0 percent for couples who were residents of Hawaii.

DIVORCES

The state divorce rate for 1986 was 4.4 per 1,000 resident population as compared to 4.6 per 1,000 for 1985. There was 4,887 divorces in 1985 and 4,674 in 1986.

Kauai County's divorce rate of 4.0 per 1,000 resident population was below the state rate. The 1986 divorce rate was 4.7 for Hawaii County, 4.6 for Maui County and 4.4 for Honolulu County.

TABLE 1

ESTIMATED POPULATION BY RESIDENCE AND MILITARY STATUS
State of Hawaii 1970, 1980 and 1986

	Resident Population				
	Total		Armed Forces[1]	Civilian[2]	
APRIL 1, 1970 (U.S. CENSUS)	Number	Percent	Number	Number	Percent
State Total	769,913	100.0	55,142	714,771	100.0
City & County of Honolulu	630,528	81.9	54,809	575,719	80.5
Hawaii County	63,468	8.2	140	63,328	8.9
Kauai County	29,761	3.9	134	29,627	4.1
Kauai Island	29,524	3.8	134	29,390	4.1
Niihau Island	237	0.0	-	237	0.0
Maui County[3]	46,156	6.0	59	46,097	6.5
Lanai Island	2,204	0.3	-	2,204	0.3
Maui Island	38,691	5.0	59	38,632	5.4
Molokai Island[3]	5,261	0.7	-	5,261	0.8
APRIL 1, 1980 (U.S. CENSUS)					
State Total	964,691	100.0	57,056	907,635	100.0
City & County of Honolulu	762,565	79.1	56,726	705,839	77.7
Hawaii County	92,053	9.5	152	91,901	10.2
Kauai County	39,082	4.0	153	38,929	4.3
Maui County[3]	70,991	7.4	25	70,966	7.8
Lanai Island	2,119	0.2	-	2,119	0.2
Maui Island	62,823	6.5	25	62,798	6.9
Molokai Island[3]	6,049	0.6	-	6,049	0.7

	REVISED POPULATION JULY 1, 1985		PROVISIONAL POPULATION JULY 1, 1986	
	Number	Percent	Number	Percent
State Total	1,051,481	100.0	1,062,344	100.0
City & County of Honolulu	812,784	77.3	818,330	77.0
Hawaii County	108,910	10.4	110,240	10.4
Kauai County[4]	44,679	4.2	46,361	4.4
Maui County[3]	85,108	8.1	87,413	8.2
Lanai Island	2,179	0.2	2,204	0.2
Maui Island	76,462	7.3	78,525	7.4
Molokai Island[3]	6,467	0.6	6,684	0.6

1/Includes Navy and Coast Guard crews
2/Includes military dependents (1970--61,858; 1980--64,023; 1985--67,100)
3/Includes Kalawao County (Kalaupapa 1970--172; 1980--144; 1986--145)
4/Estimate for Niihau Island: July 1, 1981--260; July 1, 1986--214)
5/Provisional Estimates, Department of Planning and Economic Developement, June, 1987

Source: Hawaii State Department of Planning and Economic Development, Statistical Report 147; Preliminary Intercensal Estimates, 1970-1980, July 9, 1981; Provisional Estimates of the Population of Hawaii, 1980-84; DPED Preliminary estimates, June, 1987.

FIGURE 1
BIRTHS OCCURRING IN HAWAII 1900-1986

TABLE 2

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF CHILD
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF CHILD													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTRICAN	KOREAN	SAMOAN	NEGRO	PORTUGESE	VIETMESE	OTHER	UNKNOWN
TOTAL RECORDED	18341	1334.	17.3	4307	63	5614	709	2755	2366	140	295	470	856	190	71	502	3
STATE OF HAWAII	18341	18253	17.2	4279	63	5609	705	2747	2360	138	2od	469	d51	190	70	481	3
COUNTY OF HAWAII	1731	1800	16.3	324	11	842	20	227	218	15	9	3	16	54		61	
CITY OF HILO	1127	555	11.9	31	3	301	5	52	107	9	5		3	20		19	
BALANCE OF COUNTY	604	1245	19.6	293	8	541	15	175	111	6	4	3	13	34		42	
COUNTY OF HONOLULU	14418	14074	17.2	3482	35	3789	662	2051	1860	114	265	461	824	94	64	370	3
CITY OF HONOLULU	12878	5510	14.4	1055	9	1233	472	891	910	47	173	238	240	28	51	163	
BALANCE OF COUNTY	1540	8564	19.7	2427	26	2556	190	1160	950	67	92	223	584	66	13	207	3
COUNTY OF KALAWAO		1	6.9	1													
COUNTY OF KAUAI	787	822	17.7	134	10	341	8	185	108	3	3		3	19		8	
ISLAND OF KAUAI	786	816	17.7	134	6	339	8	185	108	3	3		3	19		8	
ISLAND OF NIIHAU	1	6	28.0		4	2											
COUNTY OF MAUI	1435	1556	17.8	339	7	637	15	284	174	6	11	5	8	23	6	42	
ISLAND OF LANAI	19	28	12.7	3		8		14	2							1	
ISLAND OF MAUI	1339	1393	17.7	328	4	518	13	263	167	6	11	5	8	23	6	41	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	53	135	20.2	7	3	111	2	7	5								
NONRESIDENT		86		27		5	4	8	6	2	7	1	4		1	21	
UNKNOWN RESIDENCE		2		1									1				

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

TABLE 3

LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF MOTHER													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL RECORDED	18341	18341	17.3	5650	137	4048	668	2990	2478	117	395	478	632	221	76	448	3
STATE OF HAWAII	18341	18253	17.2	5615	137	4044	664	2983	2470	116	388	477	627	221	75	433	3
COUNTY OF HAWAII	1731	1800	16.3	500	35	581	32	280	220	12	18	5	7	54		56	
CITY OF HILO	1127	555	11.9	76	13	206	9	79	113	3	10	1	2	23		20	
BALANCE OF COUNTY	604	1245	19.6	424	22	375	23	201	107	9	8	4	5	31		36	
COUNTY OF HONOLULU	14418	14074	17.2	4406	57	2785	611	2205	1969	98	352	467	616	102	69	334	3
CITY OF HONOLULU	12878	5510	14.4	1416	15	896	423	928	951	35	214	238	164	27	55	146	
BALANCE OF COUNTY	1540	8564	19.7	2990	42	1889	186	1277	1018	63	138	229	452	75	14	188	3
COUNTY OF KALAWAO		1	6.9	1													
COUNTY OF KAUAI	787	822	17.7	220	20	232	7	188	116		6	1	2	22		8	
ISLAND OF KAUAI	786	816	17.7	220	16	230	7	188	116		6	1	2	22		8	
ISLAND OF NIIHAU	1	6	28.0		4	2											
COUNTY OF MAUI	1405	1556	17.8	483	25	446	14	310	165	6	12	4	2	43	6	35	
ISLAND OF LANAI	19	28	12.7	5		6		17									
ISLAND OF MAUI	1333	1393	17.7	466	20	349	13	281	159	6	12	4	2	40	6	35	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	53	135	20.2	17	5	91	1	12	6					3			
NONRESIDENT		86		34		4	4	7	8	1	7	1	4		1	15	
UNKNOWN RESIDENCE		2		1									1				

*NUMBER OF BIRTHS PER 1,000 RESIDENT POPULATION

TABLE 4

LIVE BIRTHS BY RACE OF MOTHER AND TYPE OF CONGENITAL MALFORMATION
STATE OF HAWAII, 1986

TYPE OF CONGENITAL MALFORMATION	TOTAL	PERCENT	RACE OF MOTHER													
			CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL	18,253	100.0	5,615	137	4,044	664	2,983	2,470	116	388	477	627	221	75	433	
PERCENT	100.0		30.8	.8	22.2	3.6	16.3	13.5	.6	2.1	2.6	3.4	1.2	.4	2.4	
NO MALFORMATION	18,050	98.9	5,553	134	3,999	657	2,953	2,444	114	384	470	625	215	74	425	
ONE OR MORE MALFORMATIONS	203	1.1	62	3	45	7	30	26	2	4	7	2	6	1	8	
ANENCEPHALUS (01)	1		1													
SPINA BIFIDA, MENINGOCELE (02)	4			1	1								1		1	
HYDROCEPHALUS (03)	7		3	1	2									1		
CIRCULATORY SYSTEM (06, 07)	25	.1	8		5		5	5	1		1					
CLEFT PALATE & HARELIP (09)	17	.1	7		1	1	4	3					1			
DIGESTIVE SYSTEM (10)	6		1		1		1			2	1					
GENITO-URINARY (11)	15	.1	4	1	3		3	3							1	
CLUBFOOT (12)	5				2		1						1		1	
BONE & JOINT (13, 14)	26	.1	6	1	6	3	5	5								
MULTIPLE ANOMALIES (16, 17, 18)	12	.1	5		3		2	1							1	
DOWNS DISEASE (15)	9		5		2		1								1	
OTHER AND UNSPECIFIED (RESIDUAL)	103	.6	33		24	3	12	11	1	2	7	2	4		4	

* IF ANY INFANT HAS MORE THAN ONE CONGENITAL MALFORMATION, THE SUM OF THE PERCENTAGES WILL BE GREATER THAN 100

TABLE 5

LIVE BIRTHS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	TOTAL	PERCENT	MONTH OF BIRTH												
			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
TOTAL RECORDED	18341	100.0	1542	1423	1473	1464	1517	1512	1589	1591	1653	1604	1508	1465	
STATE OF HAWAII	18341	100.0	1542	1423	1473	1464	1517	1512	1589	1591	1653	1604	1508	1465	
PERCENT			8.4	7.8	8.0	8.0	8.3	8.3	8.7	8.7	9.0	8.7	8.2	8.0	
COUNTY OF HAWAII	1731	9.4	147	125	145	121	155	138	170	153	149	150	136	142	
CITY OF HILO	1127	6.1	89	81	94	69	93	89	112	98	105	96	100	101	
BALANCE OF COUNTY	604	3.3	58	44	51	52	62	49	58	55	44	54	36	41	
COUNTY OF HONOLULU	14418	78.6	1207	1143	1147	1160	1164	1186	1236	1253	1319	1270	1204	1129	
CITY OF HONOLULU	12878	70.2	1102	1064	1035	1032	1030	1058	1105	1126	1172	1126	1052	976	
BALANCE OF COUNTY	1540	8.4	105	79	112	128	134	128	131	127	147	144	152	153	
COUNTY OF KALAWAO															
COUNTY OF KAUAI	787	4.3	57	54	63	66	69	61	75	75	62	72	68	65	
ISLAND OF KAUAI	786	4.3	56	54	63	66	69	61	75	75	62	72	68	65	
ISLAND OF NIIHAU	1		1												
COUNTY OF MAUI	1405	7.7	131	101	118	117	129	127	109	110	123	112	100	129	
ISLAND OF LANAI	19	.1	2	1	2	2	2	4	1	2		1	1	1	
ISLAND OF MAUI	1333	7.3	122	97	109	106	127	118	104	105	119	109	94	123	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	53	.3	7	3	7	9		5	3	3	4	2	5	5	
NONRESIDENT															
UNKNOWN RESIDENCE															

TABLE 6

LIVE BIRTHS BY TYPE OF ATTENDANT AT BIRTH BY RACE OF CHILD BY PLACE OF BIRTH
STATE OF HAWAII, 1986

ATTENDANT	TOTAL	RACE OF CHILD												
		CAUCASIAN	HAWAIIAN	PART HAWN	CHINESE	FILIPINO	JAPANESE	P-RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAM	OTHERS	UNKNOWN
TOTAL BIRTHS	18341	4299	63	5613	708	2757	2366	140	295	471	856	189	70	500	14
HOSPITAL a/	18105	4161	60	5572	701	2742	2356	140	294	470	844	188	70	494	13
MED DOC	17661	3927	58	5510	700	2700	2348	137	284	466	783	188	69	478	13
OSTEOPATH	376	229	1	14	1	34	7	3	10	3	58	0	1	15	0
MIDWIFE	44	4	1	33	0	5	1	0	0	0	0	0	0	0	0
NATUROPATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	24	1	0	15	0	3	0	0	0	1	3	0	0	1	0
OTHER FACILITY	15	0	0	11	0	2	0	0	0	1	1	0	0	0	0
MED DOC b/	14	0	0	10	0	2	0	0	0	1	1	0	0	0	0
OSTEOPATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIDWIFE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NATUROPATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
OTHER c/	221	138	3	30	7	13	10	0	1	0	11	1	0	6	1
MED DOC	14	5	0	3	1	3	0	0	0	0	1	0	0	0	1
OSTEOPATH	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIDWIFE	7	6	0	1	0	0	0	0	0	0	0	0	0	0	0
NATUROPATH	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER	195	122	3	26	6	10	10	0	1	0	10	1	0	6	0

a/HOSPITALS AND LARGE DISPENSARIES
b/SMALL DISPENSARIES, BIRTHING CENTERS
c/AT HOME

TABLE 7

LIVE BIRTHS BY RACE OF FATHER AND OF MOTHER
STATE OF HAWAII, 1986

RACE OF MOTHER		ALL RACES		RACE OF FATHER													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
ALL RACES	NUMBER	18,253	100.0	5,267	187	3,128	668	2,575	2,237	198	207	441	795	279	42	456	1,773
	PERCENT	100.0		28.9	1.0	17.1	3.7	14.1	12.3	1.1	1.1	2.4	4.4	1.5	.2	2.5	9.7
CAUCASIAN		5,615	30.8	3,874	29	481	60	237	235	37	16	27	130	40	1	72	376
HAWAIIAN		137	.8	14	43	30		7	6	3		1	2	1		10	20
PART HAWN		4,044	22.2	344	82	1,669	68	414	283	62	15	103	41	119	1	105	738
CHINESE		664	3.6	92		54	327	23	127	2	4	1	1	9		10	14
FILIPINO		2,983	16.3	358	7	376	27	1,637	165	29	4	22	42	44	2	34	236
JAPANESE		2,470	13.5	315	9	301	153	165	1,308	7	28	15	11	30	1	30	97
PUERTO RCN		116	.6	13	2	16		11	2	38		2	10	5		6	11
KOREAN		388	2.1	83	2	23	16	16	74	5	140	3	8	2		3	13
SAMOAN		477	2.6	23	3	39	3	10	5	2		254	14	1		14	109
NEGRO		627	3.4	33		3	1	1		6			525	1		2	55
PORTUGUESE		221	1.2	16	5	82	3	30	22	2		2	2	22		3	32
VIETNAMESE		75	.4	16		1	4	4							36	1	13
OTHER		433	2.4	86	5	53	6	20	10	5		11	9	5	1	166	56
UNKNOWN		3															3
FATHER AND MOTHER OF SAME RACE		10,042	55.0	3,874	43	1,669	327	1,637	1,308	38	140	254	525	22	36	166	3

TABLE 8

LIVE BIRTHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
STATE OF HAWAII, 1986

RACE OF MOTHER		TOTAL NO. OF BIRTHS		MONTH OF FIRST PRENATAL VISIT											
		NUMBER	PERCENT	1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	NONE	NOT STATED	FIRST 3 MONTHS
ALL RACES	NUMBER	18,253	100.0	2,987	7,048	3,902	1,569	947	624	374	296	96	143	267	13,937
	PERCENT	100.0		16.4	38.6	21.4	8.6	5.2	3.4	2.0	1.6	.5	.8	1.5	76.4
CAUCASIAN		5,615	30.8	1,126	2,262	1,252	421	224	127	55	59	17	31	41	4,640
HAWAIIAN		137	.8	7	27	30	18	15	9	11	7	1	6	6	64
PART HAWN		4,044	22.2	431	1,370	912	468	299	210	127	86	27	42	72	2,713
CHINESE		664	3.6	141	317	116	29	15	16	7	10		2	11	574
FILIPINO		2,983	16.3	401	1,082	681	284	195	118	74	60	17	18	53	2,164
JAPANESE		2,470	13.5	530	1,199	424	127	61	36	21	22	9	13	28	2,153
PUERTO RCN		116	.6	18	52	20	10	7	4	1			2	2	90
KOREAN		388	2.1	73	155	75	25	16	13	9	5	2	2	13	303
SAMOAN		477	2.6	38	102	88	50	49	48	30	21	14	14	23	228
NEGRO		627	3.4	123	249	152	49	27	7	7	4	2	4	3	524
PORTUGUESE		221	1.2	35	78	49	33	9	8	3	3			3	162
VIETNAMESE		75	.4	10	34	12	6	5	1		2	1	1	3	56
OTHER		433	2.4	53	121	90	48	25	27	29	17	6	8	9	264
UNKNOWN		3		1		1	1								2

TABLE 9

LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN TO MOTHER
STATE OF HAWAII, 1986

RACE OF MOTHER		TOTAL NO. OF BIRTHS		TOTAL NUMBER OF CHILDREN BORN TO MOTHER												
		NUMBER	PERCENT	-1-	-2	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	12 OR MORE	UNK
ALL RACES	NUMBER	18,253	100.0	5,773	5,619	3,406	1,784	876	402	174	106	47	24	16	18	8
	PERCENT	100.0		31.6	30.8	18.7	9.8	4.8	2.2	1.0	.6	.3	.1	.1	.1	
CAUCASIAN		5,615	30.8	1,748	1,789	1,084	553	231	111	45	24	16	7	2	4	1
HAWAIIAN		137	.8	26	30	30	22	13	5	4	4	1	2			
PART HAWN		4,044	22.2	1,192	1,118	756	444	249	151	59	42	17	4	4	5	3
CHINESE		664	3.6	241	212	133	42	20	10	4	1		1			
FILIPINO		2,983	16.3	1,042	909	533	269	135	52	21	6	6	2	3	3	2
JAPANESE		2,470	13.5	332	876	450	187	76	29	13	5		1			1
PUERTO RCN		116	.6	31	34	27	14	5	1	2		1		1		
KOREAN		388	2.1	132	118	65	34	19	7	5	5			1	2	
SAMOAN		477	2.6	141	110	74	68	35	19	12	11	1	3	1	2	
NEGRO		627	3.4	185	215	116	67	30	9	3	1			1		
PORTUGUESE		221	1.2	64	61	47	25	15	2	1	2		2	1	1	
VIETNAMESE		75	.4	25	21	13	7	5	1	1					1	1
OTHER		433	2.4	114	125	78	52	42	5	4	5	5	1	2		
UNKNOWN		3			1			1					1			

TABLE 10

LIVE BIRTHS BY RACE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE TO MOTHER
STATE OF HAWAII, 1986

RACE OF MOTHER		TOTAL NO. OF BIRTHS		TOTAL NUMBER OF CHILDREN BORN ALIVE												
		NUMBER	PERCENT	-1-	-2	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	12 OR MORE	UNK
ALL RACES	NUMBER	18,253	100.0	7,754	5,941	2,824	1,061	385	154	58	32	18	2	6	10	8
	PERCENT	100.0		42.5	32.5	15.5	5.8	2.1	.8	.3	.2	.1			.1	
CAUCASIAN		5,615	30.8	2,558	1,912	802	236	60	21	14	5	3			3	1
HAWAIIAN		137	.8	35	33	27	21	11	5	2	3					
PART HAWN		4,044	22.2	1,520	1,193	719	340	151	71	21	15	8	1	1	1	3
CHINESE		664	3.6	303	226	104	22	4	4	1						
FILIPINO		2,983	16.3	1,246	972	478	179	64	23	7	2	3	1	3	3	2
JAPANESE		2,470	13.5	1,176	895	301	76	14	6	1						1
PUERTO RCN		116	.6	39	39	27	8	1	2							
KOREAN		388	2.1	192	133	49	11	1		1					1	
SAMOAN		477	2.6	155	117	78	62	35	14	6	4	3		2	1	
NEGRO		627	3.4	259	215	97	42	11	3							
PORTUGUESE		221	1.2	84	58	55	14	3	3	1	2	1				
VIETNAMESE		75	.4	28	23	14	4	3		1					1	1
OTHER		433	2.4	157	125	73	46	26	2	3	1					
UNKNOWN		3		2				1								

TABLE 11

LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN
STATE OF HAWAII, 1986

AGE OF MOTHER	TOTAL	PERCENT	TOTAL NUMBER OF CHILDREN BORN TO MOTHER												
			-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	> 11	UNK
ALL AGES	18,253	100.0	5,773	5,619	3,406	1,784	876	402	174	106	47	24	16	18	8
PERCENT	100.0		31.6	30.8	18.7	9.6	4.8	2.2	1.0	.6	.3	.1	.1	.1	
UNDER 15	18	.1	18												
15-17	488	2.7	400	81	6	1									
18-19	1,240	6.8	916	334	67	20	2					1			
20-24	5,473	30.0	2,100	1,890	940	346	126	42	14	6	4		2		3
25-29	5,538	30.3	1,413	1,798	1,140	635	312	140	46	33	13	3	2	2	1
30-34	3,867	21.2	797	1,139	882	526	279	117	62	36	12	10	1	3	3
35-39	1,434	7.9	210	348	327	231	136	84	38	23	15	6	8	8	
40-44	192	1.1	19	28	44	25	21	19	14	7	3	4	2	5	1
45-49	3			1						1			1		
OVER 49															
UNKNOWN															

TABLE 12

LIVE BIRTHS BY AGE OF MOTHER AND NUMBER OF CHILDREN BORN ALIVE
STATE OF HAWAII, 1986

AGE OF MOTHER	TOTAL	PERCENT	TOTAL NUMBER OF CHILDREN BORN ALIVE												
			-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	-10-	-11-	> 11	UNK
ALL AGES	18,253	100.0	7,754	5,941	2,824	1,061	385	154	58	32	18	2	6	10	8
PERCENT	100.0		42.5	32.5	15.5	5.8	2.1	.8	.3	.2	.1			.1	
UNDER 15	18	.1	18												
15-17	488	2.7	442	45	1										
18-19	1,240	6.8	857	344	36	3									
20-24	5,473	30.0	2,755	1,939	657	165	47	4	2				1		3
25-29	5,538	30.3	2,032	1,956	978	379	132	35	13	9	1			2	1
30-34	3,867	21.2	1,191	1,351	779	337	118	57	17	8	5			1	3
35-39	1,434	7.9	327	472	328	153	66	46	16	11	9	2	4	3	
40-44	192	1.1	36	34	44	24	20	11	10	4	3		1	4	1
45-49	3		1		1			1							
OVER 49															
UNKNOWN															

TABLE 13

SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD
STATE OF HAWAII, 1986

WEIGHT AT BIRTH IN GRAMS		ALL RACES		RACE OF CHILD													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL		17,895	100.0	4,175	63	5,499	688	2,719	2,310	136	286	461	833	186	68	468	3
LOW BIRTH WEIGHT[a]	NUMBER	1,084	6.1	182	5	373	38	218	133	15	13	11	61	7	7	21	
	PERCENT[b]			1.0		2.1	.2	1.2	.7	.1	.1	.1	.3			.1	
UNDER 501		22	.1	6	1	8		2	1	2			1			1	
501 THRU 1000		59	.3	8		22	1	9	6	1	1	1	9		1		
1001 THRU 1500		79	.4	11	1	31	5	14	6		3		8				
1501 THRU 2000		169	.9	35		59	5	32	15	3	2	3	9			6	
2001 THRU 2500		755	4.2	122	3	253	27	161	105	9	7	7	34	7	6	14	
2501 THRU 3000		3,501	19.6	574	13	1,043	135	773	555	28	48	41	166	40	14	71	
3001 THRU 3500		7,020	39.2	1,465	22	2,161	304	1,110	1,009	50	129	160	329	80	31	169	1
3501 THRU 4000		4,694	26.2	1,381	15	1,417	169	507	507	30	76	170	209	46	14	151	2
4001 THRU 4500		1,353	7.6	490	7	414	36	100	93	11	16	66	60	13	2	45	
4501 THRU 5000		209	1.2	72	1	77	6	9	13	2	3	10	7			9	
OVER 5000		27	.2	10		9		2			1	3				2	
UNKNOWN		7		1		5							1				

MEDIAN WEIGHT, LB.OZ. 7- 5 GRAMS 3306

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 14

SINGLE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF MOTHER
STATE OF HAWAII, 1986

WEIGHT AT BIRTH IN GRAMS		ALL RACES		RACE OF MOTHER													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL		17,895	100.0	5,485	137	3,964	650	2,939	2,422	114	382	466	617	218	73	425	3
LOW BIRTH WEIGHT[a]	NUMBER	1,084	6.1	250	8	289	25	241	148	11	18	11	45	12	8	15	
	PERCENT[b]			1.4		1.6	.2	1.3	.8	.1	.1	.1	.3	.1		.1	
UNDER 501		22	.1	3	1	6		3		3			1				
501 THRU 1000		59	.3	8	1	13	1	15	9		2	1	8		1		
1001 THRU 1500		79	.4	15	2	25	3	12	12		3		6	1			
1501 THRU 2000		169	.9	48	1	49	3	33	19		2	4	6	1		3	
2001 THRU 2500		755	4.2	171	3	196	21	178	138	8	11	6	24	10	7	12	
2501 THRU 3000		3,501	19.6	771	29	749	125	848	594	18	67	44	135	38	15	68	
3001 THRU 3500		7,020	39.2	1,969	50	1,553	304	1,183	1,026	45	180	163	248	96	34	168	1
3501 THRU 4000		4,694	26.2	1,772	34	1,311	149	536	549	31	86	176	145	59	14	126	2
4001 THRU 4500		1,353	7.6	615	14	299	37	115	90	9	24	59	41	10	2	38	
4501 THRU 5000		209	1.2	95	2	55	6	11	15		4	10	2	2		7	
OVER 5000		27	.2	12		6		2			1	3		1		2	
UNKNOWN		7		1		2	1	1					1			1	

MEDIAN WEIGHT, LB.OZ. 7- 5 GRAMS 3306

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 15

SINGLE MALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD
STATE OF HAWAII, 1986

WEIGHT AT BIRTH IN GRAMS		TOTAL	PERCENT	GESTATION PERIOD IN WEEKS						
				UNDER 20	20-27	28-35	36-39	40	OVER 40	UNKNOWN
TOTAL		9,211	100.0	5	49	514	4,229	1,842	2,383	189
LOW BIRTH WEIGHT[a]	NUMBER	526	5.7	4	40	183	195	22	49	33
	PERCENT[b]				.4	2.0	2.1	.2	.5	.4
UNDER 501		11	.1	4	4	1				2
501 THRU 1000		34	.4		18	7			3	6
1001 THRU 1500		44	.5		8	24	6		2	4
1501 THRU 2000		95	1.0		6	51	28	3	2	5
2001 THRU 2500		342	3.7		4	100	161	19	42	16
2501 THRU 3000		1,563	17.0		2	136	923	194	268	40
3001 THRU 3500		3,442	37.4		4	121	1,765	704	786	62
3501 THRU 4000		2,661	28.9		1	59	1,043	676	844	38
4001 THRU 4500		854	9.3			11	271	199	360	13
4501 THRU 5000		142	1.5			3	28	43	65	3
OVER 5000		18	.2				3	4	11	
UNKNOWN		5	.1	1	2	1	1			

MEDIAN WEIGHT, LB.OZ. 7- 7 GRAMS 3358

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 16

SINGLE FEMALE LIVE BIRTHS BY WEIGHT AND GESTATION PERIOD
STATE OF HAWAII, 1986

WEIGHT AT BIRTH IN GRAMS		TOTAL	PERCENT	GESTATION PERIOD IN WEEKS						
				UNDER 20	20-27	28-35	36-39	40	OVER 40	UNKNOWN
TOTAL		8,684	100.0	3	32	428	3,745	1,800	2,507	169
LOW BIRTH WEIGHT[a]	NUMBER	558	6.4	1	27	155	245	46	56	28
	PERCENT[b]				.3	1.8	2.8	.5	.6	.3
UNDER 501		11	.1	1	8		1		1	
501 THRU 1000		25	.3		14	6	2			3
1001 THRU 1500		35	.4		2	27	3			3
1501 THRU 2000		74	.9		2	40	20	3	4	5
2001 THRU 2500		413	4.8		1	82	219	43	51	17
2501 THRU 3000		1,938	22.3	1	2	120	1,094	278	404	39
3001 THRU 3500		3,578	41.2		2	100	1,555	837	1,028	56
3501 THRU 4000		2,033	23.4	1	1	45	699	502	749	36
4001 THRU 4500		499	5.7			6	128	120	235	10
4501 THRU 5000		67	.8			1	20	16	30	
OVER 5000		9	.1			1	3		5	
UNKNOWN		2					1	1		

MEDIAN WEIGHT, LB.OZ. 7- 3 GRAMS 3251

[a] INFANTS OF 2500 GRAMS OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT

TABLE 17

LIVE BIRTHS BY RACE, SEX, PLURALITY OF BIRTH, AND LOW BIRTH WEIGHT
STATE OF HAWAII, 1986

RACE OF CHILD	SINGLE AND PLURAL BIRTHS				SINGLE MALE BIRTHS			SINGLE FEMALE BIRTHS			PLURAL MALE BIRTHS			PLURAL FEMALE BIRTHS		
	TOTAL NO. OF BIRTHS	MALE	FEMALE	RATIO[a]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	LOW BIRTHWEIGHT[b] NO.	LOW BIRTHWEIGHT[b] PERCENT[c]	TOTAL	L.W BIRTHWEIGHT[b] NO.	L.W BIRTHWEIGHT[b] PERCENT[c]
ALL RACES	18,253	9,381	8,872	105.7	9,211	526	5.7	8,684	559	6.4	170	84	49.4	188	109	58.0
CAUCASIAN	4,279	2,209	2,070	106.7	2,166	93	4.3	2,009	89	4.4	43	18	41.9	61	25	41.0
HAWAIIAN	63	33	30	110.0	33	4	12.1	30	1	3.3						
PART HAWN	5,609	2,906	2,703	107.5	2,853	178	6.2	2,646	195	7.4	53	34	64.2	57	32	56.1
CHINESE	705	357	348	102.5	348	21	6.0	340	17	5.0	9	6	66.7	8	8	100.0
FILIPINO	2,747	1,404	1,343	104.5	1,387	103	7.4	1,332	115	8.6	17	8	47.1	11	5	45.5
JAPANESE	2,360	1,206	1,154	104.5	1,180	66	5.6	1,130	67	5.9	26	11	42.3	24	21	87.5
PUERTO RCN	138	61	77	79.2	61	6	9.8	75	9	12.0				2	2	100.0
KOREAN	288	141	147	95.9	141	5	3.5	145	8	5.5				2	2	100.0
SAMOAN	469	254	215	118.1	250	6	2.4	211	5	2.4	4	2	50.0	4	1	25.0
NEGRO	851	432	419	103.1	422	27	6.4	411	35	8.5	10	3	30.0	8	4	50.0
PORTUGESE	190	102	88	115.9	100	5	5.0	86	2	2.3	2			2	2	100.0
VIETNAMESE	70	34	36	94.4	34	3	8.8	34	4	11.8				2	2	100.0
OTHER	481	242	239	101.2	236	9	3.8	232	12	5.2	6	2	33.3	7	5	71.4
UNKNOWN	3		3					3								

a/ NUMBER OF MALES PER 100 FEMALES
b/ INFANTS OF 2500 GRAMS (5 LB 8 OZ) OR LESS ARE CONSIDERED LOW BIRTH WEIGHT
c/ PERCENT OF BIRTHS OF KNOWN WEIGHT ONLY

TABLE 18

LIVE BIRTHS BY RACE AND AGE OF MOTHER
STATE OF HAWAII, 1986

RACE OF MOTHER		ALL AGES		AGE OF MOTHER IN YEARS										
		NUMBER	PERCENT	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL RACES	NUMBER	18,253	100.0	18	488	1,240	5,473	5,538	3,867	1,434	192	3		
	PERCENT	100.0		.1	2.7	6.8	30.0	30.3	21.2	7.9	1.1			
CAUCASIAN		5,615	30.8	3	76	260	1,805	1,716	1,216	473	65	1		
HAWAIIAN		137	.8		7	13	43	34	31	9				
PART HAWN		4,044	22.2	7	225	511	1,474	1,081	542	182	22			
CHINESE		664	3.6		3	8	89	192	255	105	12			
FILIPINO		2,983	16.3	4	98	206	919	941	575	201	39			
JAPANESE		2,470	13.5		26	76	334	800	880	324	30			
PUERTO RCN		116	.6		4	16	33	48	12	2	1			
KOREAN		388	2.1	1	3	11	59	162	100	46	5	1		
SAMOAN		477	2.6		18	43	187	139	64	23	3			
NEGRO		627	3.4	1	6	46	295	192	62	22	3			
PORTUGUESE		221	1.2		12	15	64	79	36	14	1			
VIETNAMESE		75	.4	1		4	23	17	22	6	2			
OTHER		433	2.4	1	10	31	148	135	72	26	9	1		
UNKNOWN		3						2		1				

TABLE 19

LIVE BIRTHS BY AGE OF FATHER AND OF MOTHER
STATE OF HAWAII, 1986

AGE OF FATHER		ALL AGES		AGE OF MOTHER IN YEARS										
		NUMBER	PERCENT	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL AGES	NUMBER	18,253	100.0	18	488	1,240	5,473	5,538	3,867	1,434	192	3		
	PERCENT	100.0		.1	2.7	6.8	30.0	30.3	21.2	7.9	1.1			
< 15		2			1		1							
15-17		91	.5	2	50	34	5							
18-19		418	2.3	1	128	204	83	2						
20-24		3,748	20.5	3	120	569	2,507	452	84	13				
25-29		4,755	26.1		15	111	1,593	2,494	463	71	8			
30-34		4,046	22.2		1	20	453	1,564	1,751	244	13			
35-39		2,272	12.4		1	5	123	467	999	632	45			
40-44		758	4.2		1	2	39	127	257	270	62			
45-49		226	1.2				8	37	77	74	29	1		
50-54		81	.4				7	9	25	24	14	2		
55-59		35	.2				1	10	8	12	4			
60-64		22	.1				3	5	7	5	2			
OVER 64		36	.2				4	2	9	19	2			
UNKNOWN		1,763	9.7	12	171	295	646	369	187	70	13			

MEDIAN AGE OF KNOWN FATHERS = 29
MEDIAN AGE OF ALL MOTHERS = 26

TABLE 20

ONE MINUTE APGAR SCORE BY FIVE MINUTE APGAR SCORE
STATE OF HAWAII, 1986

ONE MINUTE APGAR SCORE	TOTAL	FIVE MINUTE APGAR SCORE																
		0	1	2	0-2	3	4	3-4	5	6	5-6	7	8	7-8	9	10	9-10	UNKNOWN
TOTAL	18253	10	22	14	46	23	21	44	51	103	154	278	1577	1855	14816	1181	15997	157
0	12	4	0	1	5	5	0	5	1	0	1	1	0	1	0	0	0	0
1	144	5	18	8	31	9	11	20	14	19	33	26	19	45	14	0	14	1
2	118	0	1	4	5	6	1	7	11	13	24	26	27	53	28	0	28	1
0-2	274	9	19	13	41	20	12	32	26	32	58	53	46	99	42	0	42	2
3	169	0	1	1	2	2	4	6	10	27	37	29	47	76	47	1	48	0
4	264	0	0	0	0	0	1	1	8	19	27	58	75	133	101	2	103	0
3-4	433	0	1	1	2	2	5	7	18	46	64	87	122	209	148	3	151	0
5	344	0	1	0	1	0	1	1	5	14	19	47	111	158	162	3	165	0
6	639	0	0	0	0	1	1	2	0	8	8	55	229	284	335	10	345	0
5-6	983	0	1	0	1	1	2	3	5	22	27	102	340	442	497	13	510	0
7	2054	0	1	0	1	0	1	1	2	1	3	31	610	641	1375	32	1407	1
8	10267	1	0	0	1	0	1	1	0	1	1	5	456	461	9527	273	9800	3
7-8	12321	1	1	0	2	0	2	2	2	2	4	36	1066	1102	10902	305	11207	4
9	4008	0	0	0	0	0	0	0	0	1	1	0	3	3	3220	784	4004	0
10	79	0	0	0	0	0	0	0	0	0	0	0	0	0	4	75	79	0
9-10	4087	0	0	0	0	0	0	0	0	1	1	0	3	3	3224	859	4083	0
UNKN	155	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	151

TABLE 21

FIVE MINUTE APGAR SCORE BY RESIDENCE OF MOTHER
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	TOTAL	FIVE MINUTE APGAR SCORE																
		0	1	2	0-2	3	4	3-4	5	6	5-6	7	8	7-8	9	10	9-10	UNKNOWN
STATE OF HAWAII	18253	10	22	14	46	23	21	44	51	103	154	278	1577	1855	14816	1181	15997	157
COUNTY OF HAWAII	1800	0	1	1	2	2	1	3	1	11	12	26	126	152	1191	385	1576	55
CITY OF HILO	578	0	0	0	0	0	1	1	0	3	3	8	32	40	389	143	532	2
BALANCE OF CO	1222	0	1	1	2	2	0	2	1	8	9	18	94	112	802	242	1044	53
COUNTY OF HONOLULU	14074	9	18	13	40	17	15	32	41	79	120	206	1223	1429	11748	642	12390	63
CITY OF HONOLULU	5510	3	5	3	11	8	6	14	16	29	45	82	410	492	4733	198	4931	17
BALANCE OF CO	8564	6	13	10	29	9	9	18	25	50	75	124	813	937	7015	444	7459	46
COUNTY OF KAUAI	822	0	0	0	0	2	2	4	4	7	11	19	99	118	652	18	670	19
ISLAND OF KAUAI	816	0	0	0	0	2	2	4	4	7	11	18	98	116	649	18	667	18
ISLAND OF NIIHAU	6	0	0	0	0	0	0	0	0	0	0	1	1	2	3	0	3	1
COUNTY OF MAUI	1557	1	3	0	4	2	3	5	5	6	11	27	129	156	1225	136	1361	20
ISLAND OF LANAI	28	0	0	0	0	1	0	1	0	0	0	1	2	3	16	8	24	0
ISLAND OF MAUI	136	1	3	0	4	1	3	4	5	5	10	22	109	131	1126	99	1225	19
ISLAND OF MOLOKAI	1393	0	0	0	0	0	0	0	0	1	1	4	18	22	83	29	112	1

TABLE 22

ILLEGITIMATE LIVE BIRTHS BY PLACE OF OCCURRENCE REALLOCATED TO PLACE OF RESIDENCE AND RACE OF MOTHER
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	PLACE OF OCCURRENCE	BIRTH BY PLACE OF RESIDENCE		RACE OF MOTHER													
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTRICAN	KOREAN	SAMOAN	NEGRO	PORTUGESE	VIETMESE	OTHER	UNKNOWN
TOTAL RECORDED	3739	3739	203.9	715	61	1621	40	577	233	28	36	154	78	66	19	111	
STATE OF HAWAII	3739	3727	204.2	713	61	1621	40	577	232	28	36	154	76	66	19	104	
COUNTY OF HAWAII	516	524	291.1	118	15	230	2	77	26	4	3	2	3	16		28	
CITY OF HILO	359	183	329.7	19	7	99	1	21	12		1		1	9		13	
BALANCE OF COUNTY	157	341	273.9	99	8	131	1	56	14	4	2	2	2	7		15	
COUNTY OF HONOLULU	2683	2616	185.9	453	28	1121	36	405	178	21	32	150	72	34	16	70	
CITY OF HONOLULU	2339	996	180.8	185	7	355	24	153	92	6	21	80	16	9	11	37	
BALANCE OF COUNTY	344	1620	189.2	268	21	766	12	252	86	15	11	70	56	25	5	33	
COUNTY OF KALAWAO																	
COUNTY OF KAUAI	185	193	234.8	40	6	87		40	10					9		1	
ISLAND OF KAUAI	185	192	235.3	40	6	86		40	10					9		1	
ISLAND OF NIIHAU		1	166.7			1											
COUNTY OF MAUI	355	394	253.2	102	12	183	2	55	18	3	1	2	1	7	3	5	
ISLAND OF LANAI	4	3	107.1			2		1									
ISLAND OF MAUI	332	345	247.7	99	10	143	2	53	16	3	1	2	1	7	3	5	
ISLAND OF MOLOKAI (EXCL. KALAWAO)	19	46	340.7	3	2	38		1	2								
NONRESIDENT		11	127.9	2					1				1			7	
UNKNOWN RESIDENCE		1	500.0										1				

* NUMBER OF BIRTHS PER 1000 RESIDENT LIVE BIRTHS.

TABLE 23

ILLEGITIMATE LIVE BIRTHS BY WEIGHT AT BIRTH AND RACE OF CHILD
STATE OF HAWAII, 1986

WEIGHT AT BIRTH IN GRAMS	ALL RACES		RACE OF CHILD													
	NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER	UNKNOWN
TOTAL	3,727	100.0	465	34	2,005	37	498	195	30	18	142	116	60	18	109	
LOW BIRTH WEIGHT[a] NUMBER	357	9.6	36	3	204	5	56	20	4	1	5	9	2	3	9	
LOW BIRTH WEIGHT[a] PERCENT[b]			10.1	0.8	57.1	1.4	15.7	5.6	1.1	0.3	1.4	2.5	0.6	0.8	2.5	
UNDER 501	10	.3	1	1	6		1								1	
501 THRU 1000	18	.5	1		13		1	2						1		
1001 THRU 1500	29	.8	1		20	1	3	3				1				
1501 THRU 2000	64	1.7	8		40		7	1	1		3	2			2	
2001 THRU 2500	236	6.3	25	2	125	4	44	14	3	1	2	6	2	2	6	
2501 THRU 3000	854	22.9	94	7	442	11	144	56	9	4	20	34	12	3	18	
3001 THRU 3500	1,450	38.9	157	12	815	11	195	69	14	11	53	38	29	9	37	
3501 THRU 4000	823	22.1	136	7	421	7	87	35	2	1	46	28	14	3	36	
4001 THRU 4500	209	5.6	39	5	107	2	16	11	1		13	4	3		8	
4501 THRU 5000	28	.8	2		13	1		4		1	3	3			1	
OVER 5000	3	.1			1						2					
UNKNOWN	3	.1	1		2											

MEDIAN WEIGHT, LB.OZ. 7- 1 GRAMS 3195

[a] INFANTS OF LESS THAN 2500 GRAMS ARE CONSIDERED LOW BIRTH WEIGHT.
[b] PERCENT OF SINGLE LIVE BIRTHS OF KNOWN WEIGHT.

TABLE 24

ILLEGITIMATE LIVE BIRTHS BY RACE AND AGE OF MOTHER
STATE OF HAWAII, 1986

RACE OF MOTHER		ALL AGES		AGE OF MOTHER IN YEARS										
		NUMBER	RATIO*	< 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	OVER 49	UNKNOWN
ALL RACES	NUMBER	3,727	204.2	17	411	685	1,435	697	373	118	20	1		
	RATIO*			944.4	842.2	552.4	256.7	125.9	98.5	82.3	104.2	333.3		
CAUCASIAN		713	127.0	2	52	84	232	164	122	50	6	1		
HAWAIIAN		61	445.3		7	11	21	9	13					
PART HAWN		1,621	400.8	7	202	360	643	264	112	28	5			
CHINESE		40	60.2		2	2	19	6	5	4	2			
FILIPINO		577	193.4	4	83	103	233	94	47	9	4			
JAPANESE		232	93.9		23	43	76	52	30	8				
PUERTO RICAN		28	241.4		3	8	11	5	1					
KOREAN		36	92.8	1	2	5	8	9	7	3	1			
SAMOAN		154	322.9		14	29	67	35	6	3				
NEGRO		70	121.2	1	5	15	30	14	6	5				
PORTUGUESE		66	298.6		11	7	19	18	8	2	1			
VIETNAMESE		19	253.3	1		3	8	2	4	1				
OTHER		104	240.2	1	7	13	38	25	12	5	1			
UNKNOWN														

* NUMBER OF ILLEGITIMATE BIRTHS PER 1000 LIVE BIRTHS IN SPECIFIED GROUP.

TABLE 25

HAWAII RESIDENT BIRTHS OCCURRING OUTSIDE STATE BY AGE AND RACE OF MOTHER AND SEX OF CHILD*
1986

AGE OF MOTHER	TOTAL		RACE OF MOTHER AND SEX OF CHILD																	
			CAUCASIAN		JAPANESE		CHINESE		FILIPINO		HAWAIIAN PT HAW'N		KOREAN		BLACK		OTHER PAC. IS.		OTHER & UNK	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL	13	11	9	5	2	1		1		1	1					2	1	1		
UNDER 15																				
15 - 19	2	1	1								1					1				
20 - 24	2	2	2													1		1		
25 - 29	3	6	1	4	1	1				1							1			
30 - 34	5		5																	
35 - 39	1	2		1	1			1												
40 & OVER																				

*INCLUDES BIRTHS OCCURRING IN THE UNITED STATES AND GUAM.

FIGURE 2
DEATHS OCCURRING IN HAWAII 1900-1986

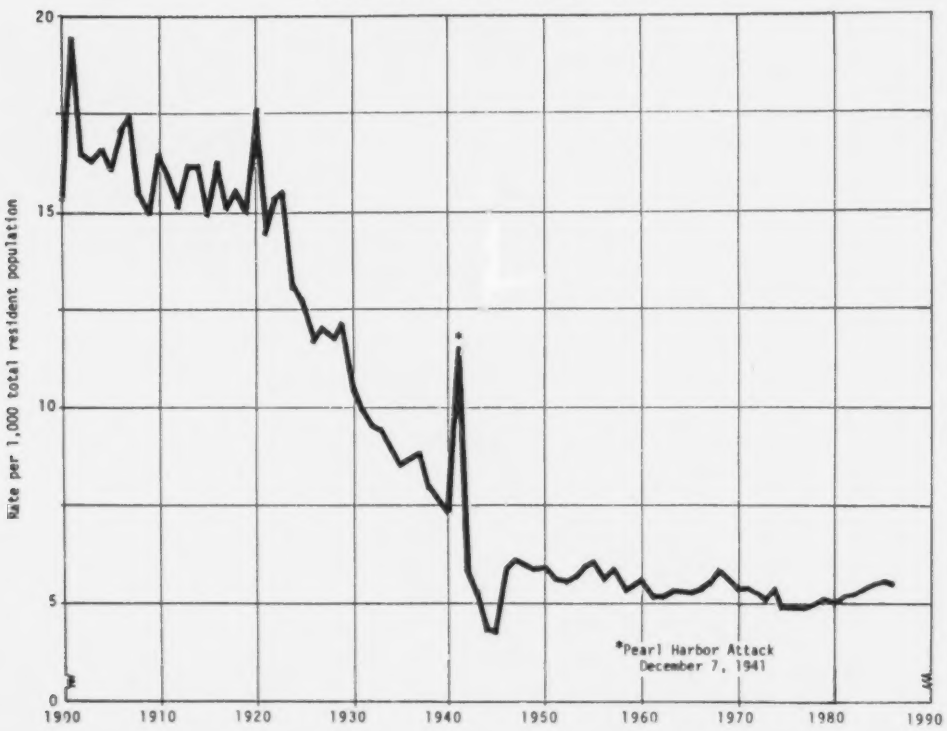


TABLE 26

TOTAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE
STATE OF HAWAII, 1986[a]

GEOGRAPHIC AREA	TOTAL BY PLACE OF OCCURR	TOTAL BY PLACE OF RESIDENCE NUMBER	TOTAL BY PLACE OF RESIDENCE RATE[b]	ALL RACES MALE	ALL RACES FEMALE	RACE CAUCASIAN	HAWN	PT. HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKNOWN
TOTAL RECORDED	6171	6171	5.8	3607	2564	1767	231	762	388	786	1641	66	95	63	56	234	9	68	5
STATE OF HAWAII	6171	5788	5.4	3356	2432	1475	231	760	378	778	1622	65	93	54	48	234	8	37	5
CTY OF HAWAII	676	719	6.5	428	291	184	42	102	10	121	191	12	1		2	47	3	4	
CITY OF HILO	446	256	5.5	145	111	43	18	36	6	30	96	2	1		1	22	1		
BALANCE OF CTY	230	463	7.3	283	180	141	24	66	4	91	95	10			1	25	2	4	
CTY OF HONOLULU	4670	4248	5.2	2425	1823	1131	135	552	361	504	1176	37	91	54	45	124	5	28	5
CITY-HONOLULU	3785	2493	6.5	1382	1111	694	54	241	314	219	765	18	71	19	18	60	3	15	2
BALANCE OF CTY	885	1755	4.0	1043	712	437	81	311	47	285	411	19	20	35	27	64	2	13	3
CTY OF KALAWAO	1	1	6.9	1						1									
CTY OF KAUAI	303	313	6.8	196	117	35	14	37	3	73	112	8			1	29		1	
ISL OF KAUAI	303	312	6.8	196	116	35	13	37	3	73	112	8			1	29		1	
ISL OF NIIHAU		1	4.7		1		1												
CTY OF MAUI	521	507	5.8	306	201	125	40	69	4	79	143	8	1			34		4	
ISL OF LANAI	9	16	7.3	12	4	1		1		9	4	1							
ISL OF MAUI	476	446	5.7	263	183	116	31	61	3	57	133	7	1			33		4	
ISL OF MOLOKAI (EXCL KALAWAO)	36	45	6.7	31	14	8	9	7	1	13	6					1			
NONRESIDENT		382		250	132	292		2	10	8	19	1	2	9	7		1	31	
UNKNOWN		1		1											1				

[a]/EXCLUDES DEATHS OF HAWAII RESIDENTS OCCURRING AND RECORDED IN OTHER REGISTRATION AREAS
[b]/RATE OF DEATH PER 1,000 RESIDENT POPULATION

TABLE 27

RESIDENT DEATHS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1986

PLACE OF OCCURRENCE		TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
STATE OF HAWAII	NUMBER	5788	521	459	505	464	467	437	487	475	474	503	483	513	
	PERCENT	100.0	9.0	7.9	8.7	8.0	8.1	7.6	8.4	8.2	8.2	8.7	8.3	8.9	
CTY OF HAWAII		643	55	51	50	58	49	57	50	51	56	65	53	48	
CITY OF HILO		435	40	31	37	37	36	32	34	34	40	42	40	32	
BALANCE OF CTY		208	15	20	13	21	13	25	16	17	16	23	13	16	
CTY OF HONOLULU		4404	406	341	395	346	352	321	385	363	355	383	360	397	
CITY-HONOLULU		3538	335	277	329	275	283	249	322	289	289	308	277	305	
BALANCE OF CTY		866	71	64	66	71	69	72	63	74	66	75	83	92	
CTY OF KALAWAO		1			1										
CTY OF KAUAI		282	23	27	17	20	30	19	22	24	23	19	30	28	
ISL OF KAUAI		282	23	27	17	20	30	19	22	24	23	19	30	28	
ISL OF NIIHAU															
CTY OF MAUI		458	37	40	42	40	36	40	30	37	40	36	40	40	
ISL OF LANAI		9		2		1	1				1	2	1	1	
ISL OF MAUI		414	34	34	37	35	34	38	28	33	37	32	38	34	
ISL OF MOLOKAI		35	3	4	5	4	1	2	2	4	2	2	1	5	
NON-RESIDENT															
UNKNOWN															

TABLE 28

RESIDENT DEATHS BY PLACE OF OCCURRENCE, AGE, AND SEX
STATE OF HAWAII, 1986

PLACE OF OCCURRENCE	ALL AGES				AGE AND SEX																		
					UNDER 1		1 - 4		5 - 14		15 - 17		18 - 24		25 - 44		45 - 64		65 - 74		75 & OVER		UNK
	TOTAL	MALE	FEMALE	UNK	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
STATE OF HAWAII	5788	3356	2432		104	64	15	12	22	11	16	11	65	22	277	131	766	470	829	513	1262	1197	1
CTY OF HAWAII	643	385	258		2		1	3		1	1	2	6	2	27	18	80	43	89	55	179	134	
CITY OF HILO	435	255	180		2			1		1		1	4		14	9	51	28	62	34	122	106	
BALANCE OF CTY	208	130	78				1	2			1	1	2	2	13	9	29	15	27	21	57	28	
CTY OF HONOLULU	4404	2521	1883		97	63	13	9	19	7	11	9	56	18	212	101	594	372	638	385	881	919	
CITY-HONOLULU	3538	2003	1535		90	54	10	9	14	7	9	8	36	14	146	80	460	293	516	317	722	753	
BALANCE OF CTY	866	518	348		7	9	3		5		2	1	20	4	66	21	134	79	122	68	159	166	
CTY OF KALAWAO	1	1																	1				
CTY OF KAUAI	282	179	103		2				1	1	2		1	1	15	3	32	19	39	22	87	57	
ISL OF KAUAI	282	179	103		2				1	1	2		1	1	15	3	32	19	39	22	87	57	
ISL OF NIIHAU																							
CTY OF MAUI	458	270	188		3	1	1		2	2	2		2	1	23	9	60	36	62	51	115	87	1
ISL OF LANAI	9	7	2								1							1	3		3	1	
ISL OF MAUI	414	236	178		2	1	1		2	2			2	1	22	9	57	34	52	49	98	81	1
ISL OF MOLOKAI	35	27	8		1						1				1		3	1	7	2	14	5	
NON-RESIDENT																							
UNKNOWN																							

TABLE 29

RESIDENT DEATHS BY AGE AND RACE
STATE OF HAWAII, 1986

AGE IN YEARS	ALL RACES				RACE													
	TOTAL	MALE	FEMALE	UNK	CAUCASIAN	HAWN	PT. HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNK
ALL AGES	5788	3356	2432		1475	231	760	378	778	1622	65	93	54	48	234	8	37	5
UNDER 1	168	104	64		33	2	58	4	22	21	4	5	6	9		1	3	
1 - 4	27	15	12		7		9	1	2	3		1	1	1			2	
5 - 14	33	22	11		3		13	3	4	5		2	1	1		1		
15 - 17	27	16	11		4		5	2	6	7			2				1	
18 - 19	15	11	4		4		5		1	1			1		1		2	
20 - 24	72	54	18		23	1	17	2	11	9	1	1	3	2	1		1	
25 - 34	183	133	50		71	4	41	3	21	19		5	3	7	2	2	4	1
35 - 44	225	144	81		73	8	50	9	25	37	3	5	1	9	3	1	1	
45 - 54	360	227	133		77	30	86	16	39	80	5	8	7	1	6		4	1
55 - 64	876	539	337		216	54	140	42	92	243	10	15	11	7	36		10	
65 - 74	1342	829	513		388	67	166	85	144	361	18	25	9	7	63	2	6	1
75 & OVER	2459	1262	1197		576	65	170	211	411	835	24	26	9	4	122	1	3	2
UNKNOWN	1		1							1								

TABLE 30

MALE RESIDENT DEATHS BY RACE AND BY SELECTED CAUSES OF DEATH

STATE OF HAWAII 1986

CAUSES OF DEATH	TOTAL	CAUCA-SIAN	HAWN	PT. HAWN	CHI-NESE	FILI-PINO	JAPA-NESE	PUERTO RICAN	KO-REAN	SA-MOAN	NEGRO	PORTU-GUESE	VIET-NAMESE	OTHER RACES	UN-KNOWN
TOTAL DEATHS	3356	824	124	429	214	580	864	39	41	36	35	136	3	27	4
TUBERCULOSIS, ALL FORMS (010-018,137)	4					1	3								
SYPHILIS AND ITS SEQUELAE (090-097)															
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	38	4	2	9	2	7	10				2			2	
MALIGNANT NEOPLASM (140-208)	790	216	26	78	43	116	243	9	11	5	6	32		3	2
DIGESTIVE ORGANS (150-159)	272	57	5	21	10	43	115	2	5	1	3	9		1	
RESPIRATORY SYSTEM (160-163)	233	68	15	32	15	20	58	3	5	3		12		1	1
BREAST (174-175)	1			1											
GENITAL ORGANS (179-187)	83	29	2	5	3	18	20	1				4			1
URINARY ORGANS (188-189)	31	15		1	1	4	7			1		2			
LEUKEMIA (204-208)	26	7		1	1	7	7	1			1	1			
OTHER (140-208)	144	40	4	17	13	24	36	2	1		2	4		1	
DIABETES MELLITUS (250)	86	11	8	13	8	16	21	1		2	1	4		1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1404	317	61	163	107	280	347	16	16	10	10	71		6	
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1116	271	56	135	87	206	256	14	11	9	7	59		5	
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	12	2	2	2	2		3					1			
HYPERTENSIVE HEART (402,404)	33	4	2	2	3	11	7		1			2		1	
ISCHEMIC HEART (410-414)	685	161	35	80	56	122	162	9	6	5	5	42		2	
OTHER HEART DISEASE (415-417,420-429)	386	104	17	51	26	73	84	5	4	4	2	14		2	
HYPERTENSION (401,403)	11			2		4	4				1				
CEREBROVASCULAR DISEASE (430-438)	204	26	3	20	16	55	68	1	3	1	1	9		1	
ARTERIOSCLEROSIS (440)	26	10	1	4	2	3	2	1	1			2			
OTHER CIRCULATORY (441-459)	47	10	1	2	2	12	17		1		1	1			
INFLUENZA/PNEUMONIA (480-487)	135	24	2	12	9	34	46	3	1			3		1	
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	33	13	1	2	2	5	5					4			1
PEPTIC ULCER (531-533)	12	2		1	1	3	5								
CIRRHOSIS OF LIVER (571)	40	23		5	2	4	3	1				2			
NEPHRITIS AND NEPHROSIS (580-589)	24	5		3	2	4	6	1	1	1	1				
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)															
CONGENITAL ANOMALIES (740-759)	31	7		11	2	4	5			1	1				
PERINATAL CONDITIONS (760-779)	51	9	1	17	2	8	6	2		4	2				
SYMPTOMS & ILL-DEFINED COND (780-799)	24	10	1	4	1	3	4			1					
ALL OTHER DISEASES (BLANKS,000-799)	393	95	16	46	23	58	112	3	9	4	4	17	1	5	
ACCIDENTAL DEATHS (800-949)	150	40	4	34	5	23	27	2		3	4	1	1	6	
MOTOR VEHICLE (810-825)	79	18	3	20	2	17	9	2		1	2	1	1	3	
OTHER TRANS. (800-807,826-848)	2	1			1										
POISONING (850-869)	10	3		5		1	1								
FALLS (880-888)	16	5			2	1	7							1	
FIRES (890-899)	1	1													
DROWNING & SUBMERSIONS (910)	27	11	1	3		2	7			2	1				
FIREARM MISSILES (922)	1	1													
ADVERSE EFFECTS (930-949)															
OTHER ACCIDENTS (800-949)	14			6		2	3				1			2	
SUICIDE (950-959)	75	26	1	16	2	9	15		1	1	3			1	
HOMICIDE & LEGAL INTERVENTION (960-978)	31	9		7	2	2	4		1	3		2		1	
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	35	13	1	8	1	3	2	1	1	1	1		1	1	1

TABLE 30A

FEMALE RESIDENT DEATHS BY RACE AND BY SELECTED CAUSES OF DEATH

STATE OF HAWAII 1986

CAUSES OF DEATH	TOTAL	CAUCA-SIAN	HAWN	PT. HAWN	CHI-NESE	FILI-PINO	JAPA-NESE	PUERTO RICAN	KO-REAN	SA-MOAN	NEGRO	PORTU-GUESE	VIET-NAMESE	OTHER RACES	UN-KNOWN
TOTAL DEATHS	2432	651	107	331	164	198	758	26	52	18	13	98	5	10	1
TUBERCULOSIS, ALL FORMS (010-018,137)	2						2								
SYPHILIS AND ITS SEQUELAE (090-097)															
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	30	6		3	2	6	11					2			
MALIGNANT NEOPLASM (140-208)	606	192	20	82	33	41	188	6	18	3	3	16	1	3	
DIGESTIVE ORGANS (150-159)	166	46	2	22	12	6	65	1	7		1	4			
RESPIRATORY SYSTEM (160-163)	120	51	4	15	5	8	28	2	2	1		3		1	
BREAST (174-175)	103	31	7	18	5	6	28	2	1	1	1	2		1	
GENITAL ORGANS (179-187)	65	17	4	7	1	10	21		2			2	1		
URINARY ORGANS (188-189)	20	5		4	1	3	7								
LEUKEMIA (204-208)	13	1			2	2	7		1						
OTHER (140-208)	119	41	3	16	7	6	32	1	5	1	1	5		1	
DIABETES MELLITUS (250)	77	8	12	17	6	10	19	4				1			
DISEASE OF CIRCULATORY SYSTEM (390-459)	1027	251	63	127	83	89	325	8	12	7	4	52	2	3	1
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	774	186	45	98	59	68	247	5	10	4	4	45	2	3	
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	10	1		3	1	3	2								
HYPERTENSIVE HEART (402,404)	29	4	2	3	1	4	12		1		1	1			
ISCHEMIC HEART (410-414)	450	99	25	59	46	33	146	3	4	1	1	30	1	2	
OTHER HEART DISEASE (415-417,420-429)	285	82	18	33	11	28	87		5	3	2	14	1	1	
HYPERTENSION (401,403)	10	2	1	1	2	1	3								
CEREBROVASCULAR DISEASE (430-438)	196	51	14	22	20	17	56	5	2	3		5			1
ARTERIOSCLEROSIS (440)	21	8	1	2	2		7					1			
OTHER CIRCULATORY (441-459)	26	4	2	4		3	12					1			
INFLUENZA/PNEUMONIA (480-487)	105	25	1	8	8	4	48	1	3	1		6			
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	28	6	1	5	1	3	9			1		2			
PEPTIC ULCER (531-533)	2					1	1								
CIRRHOSIS OF LIVER (571)	28	14	1		1	2	6	1	1			2			
NEPHRITIS AND NEPHROSIS (580-589)	21	3	1	4	2	1	10								
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)	1	1													
CONGENITAL ANOMALIES (740-759)	20	1		6	1	5	3	1	1		1			1	
PERINATAL CONDITIONS (760-779)	34	6		14		3	6	1	1		1		1	1	
SYMPTOMS & ILL-DEFINED COND (780-799)	29	7		6	3	2	7		1		2	1			
ALL OTHER DISEASES (BLANKS,000-799)	297	87	6	38	16	21	96	4	6	5	1	15		2	
ACCIDENTAL DEATHS (800-949)	65	16		16	4	5	16		4	1	1	1	1		
MOTOR VEHICLE (810-825)	36	6		12	2	4	6		2	1	1	1	1		
OTHER TRANS. (800-807,826-848)	5	1		3			1								
POISONING (850-869)	2	2													
FALLS (880-888)	9	2			2		5								
FIRES (890-899)	2	1					1								
DROWNING & SUBMERSIONS (910)	6	2				1	1		2						
FIREARM MISSILES (922)															
ADVERSE EFFECTS (930-949)															
OTHER ACCIDENTS (800-949)	5	2		1			2								
SUICIDE (950-959)	35	15	1	3	3	1	9		3						
HOMICIDE & LEGAL INTERVENTION (960-978)	16	9			1	3	2		1						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	9	4	1	2		1			1						

TABLE 31

TOTAL RESIDENT DEATHS RECORDED IN HAWAII BY AGE GROUPS FOR SELECTED YEARS
STATE OF HAWAII: 1986, 1976, AND 1966

AGE IN YEARS	1986		1976[a/]		1966[a/]	
	NUMBER	PERCENT	NUMBER	PERCENT	NUMBER	PERCENT
ALL AGES	5,788	100.0	4,349	100.0	3,768	100.0
UNDER 1	168	2.9	172	4.0	282	7.5
1 - 4	27	0.5	17	0.4	36	1.0
5 - 9	15	0.3	12	0.3	39	1.0
10 - 14	18	0.3	18	0.4	23	0.6
15 - 19	42	0.7	80	1.8	50	1.3
20 - 24	72	1.2	110	2.5	58	1.5
25 - 34	183	3.2	169	3.9	86	2.3
35 - 44	225	3.9	163	3.7	175	4.6
45 - 54	360	6.2	424	9.7	448	11.9
55 - 64	876	15.1	742	17.1	692	18.4
65 - 74	1,342	23.2	948	21.8	779	20.7
75 - 84	1,403	24.2	859	19.7	728	19.3
85 & OVER	1,057	18.3	635	14.6	372	9.9
UNKNOWN	--		--		--	

MEDIAN AGE AT DEATH 1986: 73.2 YEARS; 1976: 66.8 YEARS; 1966: 64.9 YEARS
[a/]SOURCE: DEPARTMENT OF HEALTH ANNUAL STATISTICAL REPORT, 1976

TABLE 32

RESIDENT DEATHS BY AGE, SEX, AND MARITAL STATUS
STATE OF HAWAII, 1986

AGE IN YEARS	NUMBER BY MARITAL STATUS																	
	MALE						FEMALE						UNKNOWN					
	TOTAL	SIN	MAR	WID	DIV	UNK	TOTAL	SIN	MAR	WID	DIV	UNK	TOTAL	SIN	MAR	WID	DIV	UNK
ALL AGES	3356	632	1941	472	305	6	2432	253	782	1206	189	2						
UNDER 15	141	141					87	87										
15 - 17	16	16					11	11										
18 - 19	11	11					4	3	1									
20 - 24	54	47	6		1		18	14	3		1							
25 - 34	133	72	45		14	2	50	23	20		7							
35 - 44	144	42	72	1	29		81	14	51	2	14							
45 - 54	227	37	132	5	52	1	133	15	88	14	16							
55 - 64	539	70	376	29	64		337	24	209	63	40	1						
65 - 74	829	80	597	78	73	1	513	18	240	198	57							
75 - 84	818	80	505	183	49	1	585	25	137	382	40	1						
85 & OVER	444	36	208	176	23	1	612	19	33	546	14							
UNKNOWN							1			1								

TABLE 33

LEADING CAUSES OF DEATH FOR 1986 AND COMPARATIVE DATA FOR SELECTED YEARS
STATE OF HAWAII, 1986, 1976, 1966

	Rank	1986			1976			1966		
		No.[a]	Rate[b]	Percent	No.[c]	Rate[b]	Percent	No.[c]	Rate[b]	Percent
All Causes	..	5,788	544.8	100.0	4,719	532.2	100.0	3,849	541.9	100.0
Diseases of the Heart (390-398, 402, 404, 410-429)	1	1,890	177.9	32.7	1,583	178.5	33.5	1,292	181.9	33.6
Malignant Neoplasms (140-208)	2	1,396	131.4	24.2	982	110.8	20.8	700	98.5	18.2
Cerebrovascular Diseases (430-438)	3	400	37.7	6.9	413	46.6	8.8	304	42.8	7.9
Influenza and Pneumonia (480-487)	4	240	22.6	4.1	216	24.4	4.6	138	19.4	3.6
All Accidents (E800-E949)	5	215	20.2	3.7	314	35.4	6.7	294	41.4	7.6
Diabetes Mellitus (250)	6	163	15.3	2.8	137	15.5	2.9	125	17.6	3.3
Suicide (E950-E959)	7	110	10.4	1.9	98	11.1	2.1	68	9.6	1.8
Perinatal Conditions (760-779)	8	85	8.0	1.5	91	10.3	1.9	201	28.3	5.2
Other Circulatory Diseases (441-459)	9	73	6.9	1.3	45	5.1	1.0	51	7.2	1.3
Liver Disease and Cirrhosis (571)	10	68	6.4	1.2	75	8.5	1.6	44	6.2	1.1
Bronchitis, Emphysema and Asthma (490-493)	11	61	5.7	1.1	37	4.2	0.8	82	11.5	2.1
Congenital Anomalies (740-759)	12	51	4.8	0.9	53	6.0	1.1	70	9.9	1.8
Homicide (960-978)	13	47	4.4	0.8	57	6.4	1.2	30	2.8	0.5
All Other Causes		989	93.1	16.9	618	69.4	13.0	450	64.8	12.0

a/ Resident deaths only (including resident military personnel)
b/ Rate of death per 100,000 total resident population
c/ Source: Annual Statistical Report of the Health Department

TABLE 34

RESIDENT DEATHS IN HAWAII, LEADING CAUSES OF DEATH FOR AGE GROUPS

STATE OF HAWAII 1986

ALL AGE GROUPS	Total	Rate per 10,000 Resident Population	Male		Female	
			Number	Percent	Number	Percent
Total	5,788	54.5	3,356	100.0	2,432	100.0
1. Diseases of the Heart	1,890	17.8	1,116	33.3	774	31.8
2. Malignant Neoplasm	1,396	13.1	790	23.5	606	24.9
3. Cerebrovascular Disease	400	3.8	204	6.1	196	8.1
4. Influenza and Pneumonia	240	2.3	135	4.0	105	4.3
5. All Accidents	215	2.0	150	4.5	65	2.7
6. Diabetes Mellitus	163	1.5	86	2.6	77	3.2
7. Suicide	110	1.0	75	2.2	35	1.4
8. Perinatal Conditions	85	0.8	51	1.5	34	1.4
9. Other Circulatory Diseases	73	0.7	47	1.4	26	1.1
10. Liver Diseases and Cirrhosis	68	0.6	40	1.2	28	1.2
All Other Causes	1,148	10.9	662	19.7	486	19.9

	Total	Male	Female
UNDER 1 YEAR OLD - TOTAL	168	104	64
1. Perinatal Conditions	84	50	34
2. Congenital Anomalies	42	27	15
3. Influenza and Pneumonia	4	2	2
All Other Causes	38	25	13
1 TO 4 YEAR OLD - TOTAL	27	15	12
1. Accidents (less Motor V.)	6	4	2
2. Malignant Neoplasm	5	3	2
3. Motor Vehicle Accidents	2	1	1
3. Diseases of the Heart	2	1	1
All Other Causes	12	6	6
5-14 YEAR OLD - TOTAL	33	22	11
1. Motor Vehicle Accidents	10	6	4
2. Malignant Neoplasm	7	5	2
3. Accidents (less Motor V.)	5	3	2
All Other Causes	11	8	3

	Total	Male	Female
15-24 YEAR OLD - TOTAL	114	81	33
1. Motor Vehicle Accidents	32	26	6
2. Suicide	17	13	4
3. Accidents (less Motor V.)	14	13	1
4. Homicide & Legal Interv.	10	5	5
4. Malignant Neoplasm	10	4	6
6. Diseases of the Heart	4	3	1
6. Bronchitis, Emphysema, Asthma	4	3	1
All Other Causes	23	14	9
25-34 YEAR OLDS - TOTAL	183	133	50
1. Suicide	30	22	8
2. Motor Vehicle Accidents	26	18	8
3. Accidents (less Motor V.)	22	15	7
4. Diseases of the Heart	20	17	3
5. Malignant Neoplasm	18	11	7
6. Homicide & Legal Interv.	13	9	4
7. Diabetes Mellitus	4	1	3
All Other Causes	50	40	10

TABLE 34 (Cont'd)

RESIDENT DEATHS IN HAWAII, LEADING CAUSES OF DEATH FOR AGE GROUPS
STATE OF HAWAII 1986

	Total	Male	Female
35-44 YEAR OLD - TOTAL	225	144	81
1. Malignant Neoplasm	59	24	35
2. Diseases of the Heart	49	38	11
3. Suicide	15	7	8
4. Cerebrovascular Diseases	12	9	3
4. Motor Vehicle Accidents	12	9	3
6. Homicide & Legal Interv.	11	9	2
7. Accidents (less Motor V.)	9	8	1
8. Cirrhosis of the Liver	5	4	1
All Other Causes	53	36	17
45-54 YEAR OLD - TOTAL	360	227	133
1. Diseases of the Heart	116	82	34
2. Malignant Neoplasm	106	55	51
3. Cerebrovascular Diseases	16	8	8
4. Cirrhosis of the Liver	11	5	6
4. Suicide	11	9	2
6. Diabetes Mellitus	9	7	2
7. Influenza & Pneumonia	8	7	1
8. Motor Vehicle Accidents	6	5	1
9. Accidents (less Motor V.)	5	3	2
9. Homicide & Legal Interv.	5	2	3
9. Other Circulatory Diseases	5	2	3
All Other Causes	62	42	20
55-64 YEAR OLD - TOTAL	876	539	337
1. Malignant Neoplasm	331	192	139
2. Diseases of the Heart	259	181	78
3. Cerebrovascular Diseases	48	26	22
4. Diabetes Mellitus	33	15	18
5. Cirrhosis of the Liver	26	19	7
6. Influenza & Pneumonia	18	12	6
7. Other Circulatory Diseases	14	9	5
8. Accidents (less Motor V.)	12	10	2
9. Suicide	11	7	4
9. Motor Vehicle Accidents	11	6	5
All Other Causes	113	62	51

	Total	Male	Female
65-74 YEAR OLD - TOTAL	1,342	829	513
1. Diseases of the Heart	470	314	156
2. Malignant Neoplasm	417	241	176
3. Cerebrovascular Diseases	87	47	40
4. Diabetes Mellitus	49	33	16
5. Influenza & Pneumonia	42	21	21
6. Other Circulatory Diseases	21	18	3
7. Bronchitis, Emphysema, Asthma	20	11	9
8. Suicide	17	12	5
9. Cirrhosis of the Liver	15	6	9
10. Arteriosclerosis	8	6	2
All Other Causes	196	120	76
75-84 YEAR OLD - TOTAL	1,403	818	585
1. Diseases of the Heart	507	292	215
2. Malignant Neoplasm	332	201	131
3. Cerebrovascular Diseases	142	77	65
4. Influenza & Pneumonia	65	42	23
5. Diabetes Mellitus	46	22	24
6. Other Circulatory Diseases	27	16	11
7. Arteriosclerosis	17	13	4
8. Bronchitis, Emphysema, Asthma	15	7	8
9. Nephritis & Nephrosis	10	9	1
10. Cirrhosis of the Liver	8	4	4
All Other Causes	234	135	99
OVER 84 YEARS OLD - TOTAL	1,057	444	613
1. Diseases of the Heart	461	187	274
2. Malignant Neoplasm	111	54	57
3. Influenza & Pneumonia	103	51	52
4. Cerebrovascular Diseases	94	37	57
5. Arteriosclerosis	21	6	15
6. Diabetes Mellitus	20	6	14
6. Nephritis & Nephrosis	20	8	12
8. Accidents (less Motor V.)	13	5	8
9. Bronchitis, Emphysema, Asthma	9	5	4
All Other Causes	205	85	120

TABLE 35

TOTAL RESIDENT DEATHS BY COUNTY AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1986

	STATE TOTAL[a]		HAWAII COUNTY		HONOLULU COUNTY		KAUAI COUNTY		MAUI COUNTY	
	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]	NUMBER	RATE[b]
TOTAL DEATHS	5788	544.8	719	652.2	4248	519.1	313	675.1	507	581.0
TUBERCULOSIS, ALL FORMS (010-018,137)	6	0.6			4	0.5	1	2.2	1	1.1
SYPHILIS AND ITS SEQUELAE (090-097)										
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	68	6.4	5	4.5	57	7.0	3	6.5	2	2.3
MALIGNANT NEOPLASM (140-208)	1396	131.4	166	150.6	1039	127.0	70	151.0	121	138.7
DIGESTIVE ORGANS (150-159)	438	41.2	58	52.6	313	38.2	23	49.6	44	50.4
RESPIRATORY SYSTEM (160-163)	353	33.2	40	36.3	274	33.5	11	23.7	28	32.1
BREAST (174-175)	104	9.8	14	12.7	79	9.7	4	8.6	7	8.0
GENITAL ORGANS (179-187)	148	13.9	17	15.4	117	14.3	8	17.3	6	6.9
URINARY ORGANS (188-189)	51	4.8	5	4.5	37	4.5	3	6.5	6	6.9
LEUKEMIA (204-208)	39	3.7	3	2.7	32	3.9	1	2.2	3	3.4
OTHER (140-208)	263	24.8	29	26.3	187	22.9	20	43.1	27	30.9
DIABETES MELLITUS (250)	163	15.3	25	22.7	113	13.8	11	23.7	14	16.0
DISEASE OF CIRCULATORY SYSTEM (390-459)	2431	228.8	331	300.3	1752	214.1	128	276.1	220	252.1
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1890	177.9	243	220.4	1380	168.6	99	213.5	168	192.5
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	22	2.1	2	1.8	18	2.2			2	2.3
HYPERTENSIVE HEART (402,404)	62	5.8	3	2.7	42	5.1	10	21.6	7	8.0
ISCHEMIC HEART (410-414)	1135	106.8	176	159.7	811	99.1	46	99.2	102	116.9
OTHER HEART DISEASE (415-417,420-429)	671	63.2	62	56.2	509	62.2	43	92.8	57	65.3
HYPERTENSION (401,403)	21	2.0	1	0.9	20	2.4				
CEREBROVASCULAR DISEASE (430-438)	400	37.7	66	59.9	271	33.1	24	51.8	39	44.7
ARTERIOSCLEROSIS (440)	47	4.4	12	10.9	32	3.9			3	3.4
OTHER CIRCULATORY (441-459)	73	6.9	9	8.2	49	6.0	5	10.8	10	11.5
INFLUENZA/PNEUMONIA (480-487)	240	22.6	31	28.1	157	19.2	21	45.3	31	35.5
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	61	5.7	6	5.4	48	5.9	2	4.3	5	5.7
PEPTIC ULCER (531-533)	14	1.3	1	0.9	12	1.5			1	1.1
CIRRHOSIS OF LIVER (571)	68	6.4	7	6.3	51	6.2	5	10.8	5	5.7
NEPHRITIS AND NEPHROSIS (580-589)	45	4.2	8	7.3	32	3.9	2	4.3	3	3.4
COMPLICATIONS OF PREGNANCY CHILDBIRTH & PUERPERIUM (630-676)	1	0.1	1	0.9	44	5.4	1	2.2	3	3.4
CONGENITAL ANOMALIES (740-759)	51	4.8	3	2.7	71	8.7	3	6.5	4	4.6
PERINATAL CONDITIONS (760-779)	85	8.0	7	6.3	46	5.6	1	2.2	3	3.4
SYMPTOMS & ILL-DEFINED COND (780-799)	53	5.0	3	2.7	510	62.3	47	101.4	62	71.0
ALL OTHER DISEASES (BLANKS,000-799)	690	65.0	71	64.4	143	17.5	13	28.0	25	28.6
ACCIDENTAL DEATHS (800-949)	215	20.2	34	30.8	71	8.7	9	19.4	15	17.2
MOTOR VEHICLE (810-825)	115	10.8	20	18.1	4	0.5			3	3.4
OTHER TRANS. (800-807,826-848)	7	0.7			10	1.2				
POISONING (850-869)	12	1.1	2	1.8	18	2.2			2	2.3
FALLS (880-888)	25	2.4	5	4.5	2	0.2				
FIRES (890-899)	3	0.3	1	0.9	26	3.2	2	4.3	2	2.3
DROWNING & SUBMERSIONS (910)	33	3.1	3	2.7					1	1.1
FIREARM MISSILES (922)	1	0.1								
ADVERSE EFFECTS (930-949)					12	1.5	2	4.3	2	2.3
OTHER ACCIDENTS (800-949)	19	1.8	3	2.7	92	11.2	4	8.6	5	5.7
SUICIDE (950-959)	110	10.4	9	8.2	45	5.5			1	1.1
HOMICIDE & LEGAL INTERVENTION (960-978)	47	4.4	1	0.9						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	44	4.1	10	9.1	32	3.9	1	2.2	1	1.1

[a] INCLUDES KALAWAO
[b] RATE PER 100,000 TOTAL RESIDENT POPULATION (MAUI COUNTY INCLUDES KALAUPAPA)

TABLE 35A

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1986

CAUSES OF DEATH UNKNOWN SEX IN MALE CATEG.	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	3356	2432	104	64	15	12	9	6	13	5	16	11	11	4	54	18	66	23	67	27	68	40
TUBERCULOSIS, ALL FORMS (010-018,137)	4	2																				
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	38	30	3	1	1		1				1									1	2	
MALIGNANT NEOPLASM (140-208)	790	606			3	2	1	2	4		1	1			3	5	5	2	6	5	8	18
DIGEST. ORGANS (150-159)	272	166														2			1			2
RESPIRATORY SYSTEM (160-163)	233	120																	1		2	3
BREAST (174-175)	1	103																1		3		6
GENITAL ORGANS (179-187)	83	65															1	1				3
URINARY ORGANS (188-189)	31	20			1																	
LEUKEMIA (204-208)	26	13			2		1		1						1				2			1
OTHER (140-208)	144	119				2		2	3		1	1			2	3	4		2	2	6	3
DIABETES MELLITUS (250)	86	77																2	1	1	1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1404	1027	1	1	1	1			1		2	1			1	1	5		13	5	16	6
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	1116	774		1	1	1			1		2	1			1		4		13	3	12	6
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	12	10		1															1	1		
HYPERTENSIVE HEART (402,404)	33	29																			1	
ISCHEMIC HEART (410-414)	685	450													1		2		5	1	6	1
OTHER HEART DISEASE (415-417,420-429)	386	285			1	1			1		2	1					2		7	1	5	5
HYPERTENSION (401,403)	11	10	1																	1		
CEREBROVASCULAR DISEASE (430-438)	204	196														1					4	
ARTERIOSCLEROSIS (440)	26	21																				
OTHER CIRCULATORY (441-459)	47	26															1			1		
INFLUENZA/PNEUMONIA (480-487)	135	105	2	2																		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	33	28									1		1	1	1					1		
PEPTIC ULCER (531-533)	12	2																				
CIRRHOSIS OF LIVER (571)	40	28															1				2	1
NEPHRITIS AND NEPHROSIS (580-589)	24	21	1																			
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)		1																				1
CONGENITAL ANOMALIES (740-759)	31	20	27	15		1	1								1	1			1			
PERINATAL CONDITIONS (760-779)	51	34	50	34																		
SYMPTOMS & ILL-DEFINED COND (780-799)	24	29	14	9	1	1											2	2	1		1	
ALL OTHER DISEASES (BLANKS,000-799)	393	297	5	2	3	3	1	1	3	1	2	2	1	2	5	2	5	3	12	1	13	7
ACCIDENTAL DEATHS (800-949)	150	65	1		5	3	5	2	4	4	5	4	8	1	26	2	21	9	12	6	12	3
MOTOR VEHICLE (810-825)	79	36			1	1	4	1	2	3	3	3	4	1	19	2	12	5	6	3	6	2
OTHER TRANS. (800-807,826-848)	2	5						1									1	1		2	1	
POISONING (850-869)	10	2													1		2	1	5		1	1
FALLS (880-888)	16	9			1							1			3		1					
FIRES (890-899)	1	2																		1		
DROWNING & SUBMERSIONS (910)	27	6	1		3	1			1	1	1		4		2		3	2	1		3	
FIREARM MISSILES (922)	1										1											
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	14	5				1	1		1						1		2				1	
SUICIDE (950-959)	75	35									1	1			12	3	15	3	7	5	4	1
HOMICIDE & LEGAL INTERVENTION (960-978)	31	16			1				1		2	2	1		2	3	5	2	4	2	6	1
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	35	9				1		1			1				3	1	7		10		3	2

TABLE 35A (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
STATE OF HAWAII 1986

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	76	41	80	51	147	82	222	152	317	185	357	226	472	287	423	275	395	310	444	613		
TUBERCULOSIS, ALL FORMS (010-018,137)											1		1		1	1	1			1		
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)		1	1				2	5	3	1	3	3	8		3	4	4	6	6	8		
MALIGNANT NEOPLASM (140-208)	16	17	12	28	43	23	70	61	122	78	124	76	117	100	101	83	100	48	54	57		
DIGEST. ORGANS (150-159)	5	2	2	10	17	5	19	14	43	21	52	19	41	31	40	25	35	14	17	21		
RESPIRATORY SYSTEM (160-163)	5	3	4	4	15	2	32	11	43	22	37	18	37	26	27	20	21	8	9	3		
BREAST (174-175)	1	6		8		8		11		16		10		11		9		7		7		
GENITAL ORGANS (179-137)		2	1	3		2	2	9	4	8	6	11	13	12	17	7	18	2	21	5		
URINARY ORGANS (188-189)		1			1	1	2		5	2	8	2	6	2	2	1	6	5		6		
LEUKEMIA (204-208)			1		2		1	1	4	3	2	1	4	3	1	1	3	1	1	2		
OTHER (140-208)	5	3	4	3	8	5	14	15	23	6	19	15	16	15	14	20	17	11	6	13		
DIABETES MELLITUS (250)	1		2		5	2	4	8	11	10	16	5	17	11	13	11	9	13	6	14		
DISEASE OF CIRCULATORY SYSTEM (390-459)	32	8	33	9	61	36	95	45	122	62	153	88	235	116	211	122	190	176	234	350		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	26	5	31	5	51	29	80	33	101	45	124	68	190	88	157	86	135	129	187	274		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	1		1	1			4	3	1			1	2		1	1	1	1		1		
HYPERTENSIVE HEART (402,404)			2		2	3	1	2		2	5	3	3	3	5		4	8	10	8		
ISCHEMIC HEART (410-414)	16	3	20	2	29	13	44	14	67	31	71	35	121	52	115	54	79	75	109	169		
OTHER HEART DISEASE (415-417,420-429)	9	2	8	2	20	13	31	14	33	12	48	29	64	33	36	31	51	45	68	96		
HYPERTENSION (401,403)			1					1	1	1	1	2		1	3	1		2	4	1		
CEREBROVASCULAR DISEASE (430-438)	5	3	1	2	7	6	10	9	16	13	14	15	33	25	39	27	38	38	37	57		
ARTERIOSCLEROSIS (440)					1						5	1	1	1	7	2	6	2	6	15		
OTHER CIRCULATORY (441-459)	1			2	2	1	5	2	4	3	9	2	9	1	5	6	11	5		3		
INFLUENZA/PNEUMONIA (480-487)			5		2	1	5		7	6	9	8	12	13	19	10	23	13	51	52		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			3			1	1	3	3	1	4	3	7	6	3	3	4	5	5	4		
PEPTIC ULCER (531-533)					1	1	2		1		1		1		4		2			1		
CIRRHOSIS OF LIVER (571)	2		1	3	4	3	12	4	7	3	2	7	4	2	2	1	2	3	1	1		
NEPHRITIS AND NEPHROSIS (580-589)		2			1		1		3	2	1	1		3	7		2	1	8	12		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)							1							1				1		1		
PERINATAL CONDITIONS (760-779)											1											
SYMPTOMS & ILL-DEFINED COND (780-799)	1	1				1			1			1	1	2		2		3	2	7		
ALL OTHER DISEASES (BLANKS,000-799)	11	3	12	4	21	10	12	19	27	16	29	32	60	24	52	35	52	34	67	96		
ACCIDENTAL DEATHS (800-949)	5	1	5	2	3	1	10	4	6	3	2		8	5	3	2	2	5	7	8		
MOTOR VEHICLE (810-825)	3	1	3	1	2		4	4	2	1	1		2	4	1	1	2	3	2			
OTHER TRANS. (800-807,826-848)														1								
POISONING (850-869)			1																			
FALLS (880-888)	1			1						1	1		3		2			1	4	5		
FIRES (890-899)					1															1		
DROWNING & SUBMERSIONS (910)	1		1			1	3		1				2							1		
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)							3		3	1			1			1		1	1	1		
SUICIDE (950-959)	3	7	4	1	5	1	4	3	3	1	9	2	3	3	2	1	2	2	1	1		
HOMICIDE & LEGAL INTERVENTION (960-978)	3	1	2	3			1		1	2					1				1			
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	2			1	1	2	2				2			1	1		2		1			

TABLE 35B

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HONOLULU COUNTY 1986

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	2425	1823	88	52	13	8	6	3	10	3	10	9	9	3	48	16	54	17	46	20	47	29
TUBERCULOSIS, ALL FORMS (010-018,137)	2	2																				
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	31	26	3	1	1		1				1									1	2	
MALIGNANT NEOPLASM (140-208)	575	464			3	2		2	2			1			3	5	4	2	5	3	5	15
DIGEST. ORGANS (150-159)	193	120														2			1			1
RESPIRATORY SYSTEM (160-163)	177	97																	1		1	2
BREAST (174-175)	1	78																1		1		6
GENITAL ORGANS (179-187)	61	56															1	1				2
URINARY ORGANS (188-189)	25	12			1																	
LEUKEMIA (204-208)	20	12			2				1						1				2			1
OTHER (140-208)	98	89				2		2	1			1			2	3	3		1	2	4	3
DIABETES MELLITUS (250)	62	51																1	1	1	1	
DISEASE OF CIRCULATORY SYSTEM (390-459)	1006	746	1	1	1	1			1			1			1	1	5		9	5	9	4
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	805	575		1	1	1			1			1			1		4		9	3	6	4
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	10	8		1																1		
HYPERTENSIVE HEART (402,404)	22	20																				
ISCHEMIC HEART (410-414)	478	333													1		2		5	1	3	1
OTHER HEART DISEASE (415-417,420-429)	295	214			1	1			1			1					2		4	1	3	3
HYPERTENSION (401,403)	11	9	1																	1		
CEREBROVASCULAR DISEASE (430-438)	141	130														1					3	
ARTERIOSCLEROSIS (440)	16	16																				
OTHER CIRCULATORY (441-459)	33	16															1			1		
INFLUENZA/PNEUMONIA (480-487)	78	79		2																		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	22	26									1			1	1					1		
PEPTIC ULCER (531-533)	11	1																				
CIRRHOSIS OF LIVER (571)	30	21															1				2	
NEPHRITIS AND NEPHROSIS (580-589)	17	15	1																			
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)	28	16	24	11		1	1								1	1			1			
PERINATAL CONDITIONS (760-779)	44	27	43	27																		
SYMPTOMS & ILL-DEFINED COND (780-799)	19	27	10	9	1	1											2	2	1		1	
ALL OTHER DISEASES (BLANKS,000-739)	281	229	5	1	2	1	1		2	1	2	1		1	4	2	5	3	9		10	4
ACCIDENTAL DEATHS (800-949)	104	39	1		4	1	3	1	4	2	2	3	8	1	21		14	4	6	4	7	3
MOTOR VEHICLE (810-825)	51	20			1	1	2		2	1	2	2	4	1	15		6	2	2	2	3	2
OTHER TRANS. (800-807,826-848)	2	2						1									1			1	1	
POISONING (850-869)	9	1													1		2		4		1	1
FALLS (880-888)	11	7			1							1			3		1					
FIRES (890-899)	1	1																		1		
DROWNING & SUBMERSIONS (910)	21	5	1		2				1	1			4		1		3	2			2	
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	9	3					1		1						1		1					
SUICIDE (950-959)	60	32									1	1			12	3	12	3	6	3	3	1
HOMICIDE & LEGAL INTERVENTION (960-978)	29	16			1				1		2	2	1		2	3	5	2	3	2	5	1
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	26	6				1					1				3	1	6		5		2	1

TABLE 35B (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HONOLULU COUNTY 1986

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UNKNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	61	34	54	37	116	54	167	119	233	150	266	162	345	207	291	203	256	240	305	457		
TUBERCULOSIS, ALL FORMS (010-018,137)													1		1	1				1		
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)			1				2	5	3	1	3	3	6		2	4	3	4	3	7		
MALIGNANT NEOPLASM (140-208)	11	16	9	20	36	17	45	49	92	65	91	51	102	70	65	64	65	39	37	43		
DIGEST. ORGANS (150-159)	3	1	2	8	13	4	12	11	32	18	38	9	36	18	25	16	18	14	13	18		
RESPIPATORY SYSTEM (160-163)	3	3	3	2	13		22	7	35	19	27	16	29	22	22	16	14	7	7	3		
BREAST (174-175)	1	6		6		8		11		12		6		5		7		5		4		
GENITAL ORGANS (179-137)		2	1	3		1	1	7	2	8	6	9	13	11	10	6	13	2	14	4		
URINARY ORGANS (188-189)		1			1		2		3	1	4	1	6	2	2	1	6	1		5		
LEUKEMIA (204-208)			1		2		1	1	3	3	1	1	3	2		1	2	1	1	2		
OTHER (140-208)	4	3	2	1	7	4	7	12	17	4	15	9	15	10	6	17	12	9	2	7		
DIABETES MELLITUS (250)	1		1		4		3	7	6	9	14	2	10	5	8	6	8	8	5	12		
DISEASE OF CIRCULATORY SYSTEM (390-459)	26	4	22	5	48	23	77	31	90	46	113	67	166	84	149	84	121	133	167	256		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	21	3	20	3	41	19	64	22	78	34	90	52	136	65	113	62	86	102	134	203		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	1		1				3	2	1			1	2		1	1	1	1		1		
HYPERTENSIVE HEART (402,404)			2		1	2	1	2		2	2	1	3	2	5		2	6	6	5		
ISCHEMIC HEART (410-414)	13	1	11	1	22	11	29	10	46	21	48	25	83	36	85	39	47	60	83	127		
OTHER HEART DISEASE (415-417,420-429)	7	2	6	2	18	6	31	8	31	11	40	25	48	27	22	22	36	35	45	70		
HYPERTENSION (401,403)			1					1	1	1	1	2			3	1		2	4	1		
CEREBROVASCULAR DISEASE (430-438)	4	1	1	2	4	4	8	6	9	8	14	11	23	17	27	15	23	24	25	41		
ARTERIOSCLEROSIS (440)					1						2	1		1	3	2	6	2	4	10		
OTHER CIRCULATORY (441-459)	1				2		5	2	2	3	6	1	7	1	3	4	6	3		1		
INFLUENZA/PNEUMONIA (480-487)			3		2	1	4		3	6	6	5	5	10	15	8	14	11	26	36		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			1				1	3	3	1	1	3	5	5	3	3	2	5	4	4		
PEPTIC ULCER (531-533)					1	1	2				1		1		4		2					
CIRRHOSIS OF LIVER (571)	1			2	3	2	9	3	6	3	2	5	2	1	2	1	1	3	1	1		
NEPHRITIS AND NEPHROSIS (580-589)		2			1		1		1	1	1			3	5			1	7	8		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)							1							1				1		1		
PERINATAL CONDITIONS (760-779)											1											
SYMPTOMS & ILL-DEFINED COND (780-799)		1				1			1			1	1	2		2		2	2	6		
ALL OTHER DISEASES (BLANKS,000-799)	11	3	9	4	16	6	9	15	20	13	23	23	41	21	33	27	34	27	45	76		
ACCIDENTAL DEATHS (800-949)	3		3	1	2	1	8	3	4	2	2		4	2	1	2	2	4	5	5		
MOTOR VEHICLE (810-825)	2		1		1		3	3		1	1		1	2	1	1	2	2	2			
OTHER TRANS. (800-807,826-848)																						
POISONING (850-969)			1																			
FALLS (880-888)				1							1		2					1	3	4		
FIRES (890-899)					1																	
DROWNING & SUBMERSIONS (910)	1		1			1	3		1				1							1		
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)							2		3	1						1		1				
SUICIDE (950-959)	3	7	3	1	3	1	3	3	3	1	6	2	1	2	1	1	2	2	1	1		
HOMICIDE & LEGAL INTERVENTION (960-978)	3	1	2	3			1		1	2					1				1			
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	2			1		1	1				2			1	1		2		1			

TABLE 35C

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HAWAII COUNTY 1986

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	428	291	5	7	1	4	1	1			1	2	1	1	4	1	5	3	10	4	9	8
TUBERCULOSIS, ALL FORMS (010-018,137)																						
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	4	1																				
MALIGNANT NEOPLASM (140-208)	100	66															1		1	1	1	3
DIGEST. ORGANS (150-159)	37	21																				1
RESPIRATORY SYSTEM (160-163)	28	12																			1	1
BREAST (174-175)		14																		1		
GENITAL ORGANS (179-187)	12	5																				1
URINARY ORGANS (188-189)	2	3																				
LEUKEMIA (204-208)	3																					
OTHER (140-208)	18	11															1		1			
DIABETES MELLITUS (250)	12	13																1				
DISEASE OF CIRCULATORY SYSTEM (390-459)	192	139																	2		2	1
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	144	99																	2		2	1
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)	2																		1			
HYPERTENSIVE HEART (402,404)	1	2																				
ISCHEMIC HEART (410-414)	106	70																				
OTHER HEART DISEASE (415-417,420-429)	35	27																	1		2	1
HYPERTENSION (401,403)		1																				
CEREBROVASCULAR DISEASE (430-438)	34	32																				
ARTERIOSCLEROSIS (440)	8	4																				
OTHER CIRCULATORY (441-459)	6	3																				
INFLUENZA/PNEUMONIA (480-487)	20	11																				
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	5	1																				
PEPTIC ULCER (531-533)		1																				
CIRRHOSIS OF LIVER (571)	4	3																				1
NEPHRITIS AND NEPHROSIS (580-589)	4	4																				
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)		1																				1
CONGENITAL ANOMALIES (740-759)	1	2	1	2																		
PERINATAL CONDITIONS (760-779)	2	5	2	5																		
SYMPTOMS & ILL-DEFINED COND (780-799)	2	1	2																			
ALL OTHER DISEASES (BLANKS,000-739)	46	25				2						1	1	1					1		1	1
ACCIDENTAL DEATHS (800-949)	21	13			1	2	1				1	1			4	1	1	2	1	1	3	
MOTOR VEHICLE (810-825)	13	7					1				1	1			3	1	1	1		1	3	
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)	1	1																1	1			
FALLS (880-888)	4	1																				
FIRES (890-899)		1																				
DROWNING & SUBMERSIONS (910)	2	1			1	1									1							
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	1	2				1																
SUICIDE (950-959)	6	3															2		1	2		
HOMICIDE & LEGAL INTERVENTION (960-978)	1																				1	
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	8	2						1									1		4		1	1

TABLE 35C (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
HAWAII COUNTY 1986

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	6	2	11	4	19	11	25	20	36	13	41	24	62	41	78	37	52	33	61	75		
TUBERCULOSIS, ALL FORMS (010-018,137)																						
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)															1		1	1	2			
MALIGNANT NEOPLASM (140-208)	1		2	3	3	2	11	6	14	5	13	10	9	16	22	10	14	4	8	6		
DIGEST. ORGANS (150-159)	1			2	1		3		5	1	5	4	2	8	9	4	9		2	1		
RESPIRATORY SYSTEM (160-163)			1		1	1	5	4	4	1	5		6	2	3	3	1		1			
BREAST (174-175)				1						2		3		3		1		2		1		
GENITAL ORGANS (179-187)								1	2			1		1	5		1		4	1		
URINARY ORGANS (188-189)									1		1							2		1		
LEUKEMIA (204-208)													1		1		1					
OTHER (140-208)			1		1	1	3	1	2	1	2	2		2	4	2	2		1	2		
DIABETES MELLITUS (250)					1		1	1	2		1	1	5	4	2	2		3		1		
DISEASE OF CIRCULATORY SYSTEM (390-459)	4	1	6	1	8	6	6	8	13	7	22	8	32	18	37	21	28	21	32	47		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	3	1	6	1	6	4	5	6	10	5	17	5	26	13	25	16	18	13	24	34		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)							1															
HYPERTENSIVE HEART (402,404)											1	1		1								
ISCHEMIC HEART (410-414)	2	1	6	1	5		4	3	10	5	12	4	18	9	17	12	15	10	17	25		
OTHER HEART DISEASE (415-417,420-429)	1				1	4		3			4		8	3	8	4	3	3	7	9		
HYPERTENSION (401,403)														1								
CEREBROVASCULAR DISEASE (430-438)	1				2	1	1	2	2	2		2	5	4	9	4	8	8	6	9		
ARTERIOSCLEROSIS (440)											3		1		2				2	4		
OTHER CIRCULATORY (441-459)						1			1		2	1			1	1	2					
INFLUENZA/PNEUMONIA (480-487)									2		2	1	4	1	3	1	1	1	8	7		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			1			1					1		1				1		1			
PEPTIC ULCER (531-533)																				1		
CIRRHOSIS OF LIVER (571)	1				1		2	1				1										
NEPHRITIS AND NEPHROSIS (580-589)									1	1					1		2			3		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)																						
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)																				1		
ALL OTHER DISEASES (BLANKS,000-799)			1		3	2	2	3	3		2	3	9		10	3	5	3	8	6		
ACCIDENTAL DEATHS (800-949)		1	1		1		1	1	1				1	1	2				2	3		
MOTOR VEHICLE (810-825)		1	1		1		1	1	1					1								
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)																						
FALLS (880-888)													1		2				1	1		
FIRES (890-899)																				1		
DROWNING & SUBMERSIONS (910)																						
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)																			1	1		
SUICIDE (950-959)					1		1						1	1								
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)					1		1															

TABLE 35D

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
KAUAI COUNTY 1986

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	196	117	4	2				1	1	1	2				1		5		4	1	3	1
TUBERCULOSIS, ALL FORMS (010-018,137)	1																					
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	1	2																				
MALIGNANT NEOPLASM (140-208)	45	25									1									1		
DIGEST. ORGANS (150-159)	14	9																				
RESPIRATORY SYSTEM (160-163)	7	4																				
BREAST (174-175)		4																		1		
GENITAL ORGANS (179-187)	6	2																				
URINARY ORGANS (188-189)	2	1																				
LEUKEMIA (204-208)	1																					
OTHER (140-208)	15	5									1											
DIABETES MELLITUS (250)	3	8																				
DISEASE OF CIRCULATORY SYSTEM (390-459)	72	56																	1		2	1
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	57	42																	1		2	1
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)																						
HYPERTENSIVE HEART (402,404)	5	5																			1	
ISCHEMIC HEART (410-414)	30	16																			1	
OTHER HEART DISEASE (415-417,420-429)	22	21																	1			1
HYPERTENSION (401,403)																						
CEREBROVASCULAR DISEASE (430-438)	12	12																				
ARTERIOSCLEROSIS (440)																						
OTHER CIRCULATORY (441-459)	3	2																				
INFLUENZA/PNEUMONIA (480-487)	17	4	1																			
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	2																					
PEPTIC ULCER (531-533)																						
CIRRHOSIS OF LIVER (571)	3	2																				
NEPHRITIS AND NEPHROSIS (580-589)	1	1																				
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)	1		1																			
PERINATAL CONDITIONS (760-779)	2	1	2	1																		
SYMPTOMS & ILL-DEFINED COND (780-799)	1																					
ALL OTHER DISEASES (BLANKS,000-799)	33	14		1					1						1							
ACCIDENTAL DEATHS (800-949)	10	3						1		1	1						4		3		1	
MOTOR VEHICLE (810-825)	6	3						1		1							3		2			
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)																						
FALLS (880-888)																						
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)	2										1								1			
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	2																1				1	
SUICIDE (950-959)	4																1					
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)		1																				

TABLE 35D (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
KAUAI COUNTY 1986

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	3	2	4	3	3	8	11	4	17	7	19	14	25	12	21	16	39	15	34	30		
TUBERCULOSIS, ALL FORMS (010-018,137)											1											
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)		1											1							1		
MALIGNANT NEOPLASM (140-208)	2		1	1	1	2	5	1	7	2	8	6	2	5	4	3	9	1	5	3		
DIGEST. ORGANS (150-159)					1		2	1	4		3	3	1	3		1	2		1	1		
RESPIRATORY SYSTEM (160-163)	1			1		1	1				1		1	1		1	3					
BREAST (174-175)										2										1		
GENITAL ORGANS (179-187)						1									1	1	3		2			
URINARY ORGANS (188-189)									1		1	1										
LEUKEMIA (204-208)											1											
OTHER (140-208)	1		1				2		2		2	2		1	3		1	1	2	1		
DIABETES MELLITUS (250)						2			1			1		1	2	2		1		1		
DISEASE OF CIRCULATORY SYSTEM (390-459)		1	2	1	1	2	3	3	6	4	5	4	10	4	10	7	18	10	14	19		
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)			2		1	1	2	3	5	3	4	3	9	3	7	3	12	9	12	16		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)																						
HYPERTENSIVE HEART (402,404)						1					1							1	3	3		
ISCHEMIC HEART (410-414)			2		1		2	1	4	3	2		4	2	3	2	8	3	3	5		
OTHER HEART DISEASE (415-417,420-429)								2	1		1	3	5	1	4	1	4	5	6	8		
HYPERTENSION (401,403)																						
CEREBROVASCULAR DISEASE (430-438)		1				1	1			1		1	1	1	2	3	6	1	2	3		
ARTERIOSCLEROSIS (440)																						
OTHER CIRCULATORY (441-459)				1					1		1				1	1						
INFLUENZA/PNEUMONIA (480-487)							1					1	1		1		5	1	8	2		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)											1		1									
PEPTIC ULCER (531-533)																						
CIRRHOSIS OF LIVER (571)				1			1						1	1			1					
NEPHRITIS AND NEPHROSIS (580-589)												1							1			
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)																						
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)	1																					
ALL OTHER DISEASES (BLANKS,000-799)					1	1	1		3	1	2	1	8		4	4	6	2	6	4		
ACCIDENTAL DEATHS (800-949)			1											1								
MOTOR VEHICLE (810-825)			1											1								
OTHER TRANS. (800-807,826-848)																						
POISONING (850-869)																						
FALLS (880-888)																						
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)																						
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)																						
SUICIDE (950-959)											2		1									
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)						1																

TABLE 35E

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
MAUI COUNTY 1986

CAUSES OF DEATH	ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	306	201	7	3	1		2	1	2	1	3		1		1	1	2	3	7	2	9	2
TUBERCULOSIS, ALL FORMS (010-018,137)	1																					
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)	1	1																				
MALIGNANT NEOPLASM (140-208)	70	51					1		2												2	
DIGEST. ORGANS (150-159)	28	16																				
RESPIRATORY SYSTEM (160-163)	21	7																				
BREAST (174-175)		7																				
GENITAL ORGANS (179-187)	4	2																				
URINARY ORGANS (188-189)	2	4																				
LEUKEMIA (204-208)	2	1					1															
OTHER (140-208)	13	14							2												2	
DIABETES MELLITUS (250)	9	5																				
DISEASE OF CIRCULATORY SYSTEM (390-459)	134	86									2								1		3	
DISEASES OF HEART (390-398,402,404 410-414,415-417,420-429)	110	58									2								1		2	
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)		2																				
HYPERTENSIVE HEART (402,404)	5	2																				
ISCHEMIC HEART (410-414)	71	31																			2	
OTHER HEART DISEASE (415-417,420-429)	34	23									2								1			
HYPERTENSION (401,403)																						
CEREBROVASCULAR DISEASE (430-438)	17	22																			1	
ARTERIOSCLEROSIS (440)	2	1																				
OTHER CIRCULATORY (441-459)	5	5																				
INFLUENZA/PNEUMONIA (480-487)	20	11	1																			
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)	4	1											1									
PEPTIC ULCER (531-533)	1																					
CIRRHOSIS OF LIVER (571)	3	2																				
NEPHRITIS AND NEPHROSIS (580-589)	2	1																				
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)	1	2	1	2																		
PERINATAL CONDITIONS (760-779)	3	1	3	1																		
SYMPTOMS & ILL-DEFINED COND (780-799)	2	1	2																			
ALL OTHER DISEASES (BLANKS,000-799)	33	29			1			1											2	1	2	2
ACCIDENTAL DEATHS (800-949)	15	10					1			1	1				1	1	2	3	2	1	1	
MOTOR VEHICLE (810-825)	9	6					1			1					1	1	2	2	2			
OTHER TRANS. (800-807,826-848)		3																1		1		
POISONING (850-869)																						
FALLS (880-888)	1	1																				
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)	2																				1	
FIREARM MISSILES (922)	1										1											
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)	2																					
SUICIDE (950-959)	5																				1	
HOMICIDE & LEGAL INTERVENTION (960-978)	1																		1			
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)	1																		1			

TABLE 35E (CONT'D)

RESIDENT DEATHS BY AGE GROUP, BY SEX AND BY SELECTED CAUSES OF DEATH
MAUI COUNTY 1986

UNKNOWN SEX IN MALE CATEG.	40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UN-KNOWN	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL DEATHS	6	3	11	7	9	9	19	9	31	15	31	26	39	27	33	19	48	22	44	51		
TUBERCULOSIS, ALL FORMS (010-018,137)																	1					
SYPHILIS AND ITS SEQUELAE (090-097)																						
OTHER INFECTIVE & PARASITIC DISEASES (000-139)																		1	1			
MALIGNANT NEOPLASM (140-208)	2	1		4	3	2	9	5	9	6	12	9	4	9	10	6	12	4	4	5		
DIGEST. ORGANS (150-159)	1	1			2	1	2	2	2	2	6	3	2	2	6	4	6		1	1		
RESPIRATORY SYSTEM (160-163)	1			1	1		4		4	2	4	2	1	1	2		3	1	1			
BREAST (174-175)				1								1		3		1				1		
GENITAL ORGANS (179-187)							1	1				1			1		1		1			
URINARY ORGANS (188-189)						1				1	2							2				
LEUKEMIA (204-208)									1					1								
OTHER (140-208)				2			2	2	2	1		2	1	2	1	1	2	1	1	3		
DIABETES MELLITUS (250)			1						2	1	1	1	2	1	1	1	1	1	1			
DISEASE OF CIRCULATORY SYSTEM (390-459)	2	2	3	2	4	5	9	3	13	5	13	9	25	10	15	10	23	12	21	28		
DISEASES OF HEART (390-398,402,404 {410-414,415-417,420-429)	2	1	3	1	3	5	9	2	8	3	13	8	19	7	12	5	19	5	17	21		
RHEUMATIC FEVER AND CHRONIC RHEUMATIC HEART DISEASE (390-398)				1				1														
HYPERTENSIVE HEART (402,404)					1						1	1					2	1	1			
ISCHEMIC HEART (410-414)	1	1	1		1	2	9		7	2	9	6	16	5	10	1	9	2	6	12		
OTHER HEART DISEASE (415-417,420-429)	1		2		1	3		1	1	1	3	1	3	2	2	4	8	2	10	9		
HYPERTENSION (401,403)																						
CEREBROVASCULAR DISEASE (430-438)		1			1			1	5	2		1	4	3	1	5	1	5	4	4		
ARTERIOSCLEROSIS (440)															2					1		
OTHER CIRCULATORY (441-459)				1									2				3	2		2		
INFLUENZA/PNEUMONIA (480-487)			2						2		1	1	2	2		1	3		9	7		
BRONCHITIS/EMPHYSEMA/ASTHMA (490-493)			1								1			1			1					
PEPTIC ULCER (531-533)									1													
CIRRHOSIS OF LIVER (571)			1			1			1			1	1									
NEPHRITIS AND NEPHROSIS (580-589)									1						1					1		
COMPLICATIONS OF PREG, CHILDBIRTH & PUERPERIUM (630-676)																						
CONGENITAL ANOMALIES (740-759)																						
PERINATAL CONDITIONS (760-779)																						
SYMPTOMS & ILL-DEFINED COND (780-799)																		1				
ALL OTHER DISEASES (BLANKS,000-799)			2		1	1		1	1	2	2	5	2	3	5	1	7	2	8	10		
ACCIDENTAL DEATHS (800-949)	2			1			1		1	1			3	1				1				
MOTOR VEHICLE (810-825)	1			1					1				1					1				
OTHER TRANS. (800-807,826-848)														1								
POISONING (850-869)																						
FALLS (880-888)	1									1												
FIRES (890-899)																						
DROWNING & SUBMERSIONS (910)													1									
FIREARM MISSILES (922)																						
ADVERSE EFFECTS (930-949)																						
OTHER ACCIDENTS (800-949)							1						1									
SUICIDE (950-959)			1		1						1				1							
HOMICIDE & LEGAL INTERVENTION (960-978)																						
ALL OTHER EXTERNAL CAUSES (800-999,XXXX)																						

TABLE 36

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES, SEX, AND AGE
STATE OF HAWAII 1986

CAUSES OF DEATH		ALL AGES		UNDER 1 YR.		1-4 YRS.		5-9 YRS.		10-14 YRS.		15-17 YRS.		18-19 YRS.		20-24 YRS.		25-29 YRS.		30-34 YRS.		35-39 YRS.	
UNKNOWN SEX IN MALE CATEG.		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
BUCCAL CAVITY AND PHARYNX	140-149	31	13													1		2				1	
LIP	140																						
TONGUE	141	2	6																				
SALIVARY GLAND	142	1																					
GUM	143																						
FLOOR OF MOUTH	144	2																					
OTHER & UNSPEC PARTS OF MOUTH	145	4																					
OROPHARYNX	146	2	1																				
NASOPHARYNX	147	9	4													1		2				1	
HYPOPHARYNX	148	5	1				1																
UNSPECIF BUCCAL CAVITY AND PHARYNX	149	6	1																				
DIGESTIVE ORGANS & PERITONEUM	150-159	278	172														2			1			2
ESOPHAGUS	150	16	5																				
STOMACH	151	66	47														1			1			1
SMALL INTESTINE & DUODENUM	152																						
LARGE INTESTINE	153	88	42														1						
RECTUM & RECTOSIGMOID JUNCTION	154	30	19																				
LIVER AND INTRAHEPATIC BILE DUCTS	155	24	15																				1
GALL BLADDER & BILE DUCTS	156	10	7																				
PANCREAS	157	42	34																				
PERITONEUM & RETROPERITONEAL TISS	158		2																				
UNSPEC DIGESTIVE ORGANS	159	2	1																				
RESPIRATORY SYSTEM	160-165	237	126																	1		2	3
NOSE,NASAL CAV, MIDDLE EAR & ACCES	160	1	2																				
LARYNX	161	8	1																				
TRACHEA, BRONCHUS & LUNG	162	225	121																	1		2	3
OTHER AND UNSPECIFIED ORGANS	163-165	3	2																				
BONE, CONN TISSUE, SKIN BREAST	170-175	21	117					1	1	1								1	1	1	3	1	6
BONE	170	4	4						1	1													
CONNECTIVE & OTHER SOFT TISSUE	171	4	3					1															
MELANOMA OF SKIN	172	6	3																	1		1	
NEOPLASM OF SKIN	173	6	1															1					
BREAST	174-175	1	106																1		3		6
GENITOURINARY ORGANS	179-189	119	85			1												1	1	1			3
CERVIC UTERI	180		12																				3
PLACENTA	181																						
OTHER MALIG NEOPLASM OF UTERUS	179,182		17																				
OVARY, FALLOP TUBE & BROAD LIGAM	183		33																1				
OTHER & UNSPEC FEMALE GENITAL ORG	184		3																				
PROSTATE	185	81																					
TESTIS	186	3																1		1			
OTHER & UNSPEC MALE GENITAL ORGAN	187	1																					
BLADDER	188	14	11																				
OTHER & UNSPEC URINARY ORGANS	189	20	9			1																	
OTHER AND UNSPECIFIED SITES	190-199	55	64				2		1	1			1				2	2			2	2	2
EYE	190																						
BRAIN	191	13	17				2			1							1	1			2	2	1
OTHER PARTS OF NERVOUS SYSTEM	192		1																				
THYROID GLAND	193	1	3														1						
OTHER ENDOCRINE GLANDS	194	1	2						1									1					
ILL-DEFINED SITES	195																						
SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES	196	2	3																				
SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS	197																						
OTHER SECONDARY MALIG NEOPLASM	198																						
WITHOUT SPECIFICATION OF SITE	199	38	38										1										1
LYMPHATIC & HEMATOPOIETIC TISS	200-208	74	49			2		1		2		1			1	3	1	2		3		2	2
LYMPHOSARCOMA & RETIC-CELL SARCO	200	8	6																	1		1	
HODGKINS DISEASE	201	3	2															1				1	1
OTHER NEOPLASMS OF LYMPHOID TISS	202	27	16							1		1				1	1						
MULTIPLE MYELOMA	203	7	7																				
LYMPHATIC LEUKEMIA	204	5	3			1										1		1		1			
MYELOID LEUKEMIA	205	15	8			1				1						1				1			1
MONOCYTIC LEUKEMIA	206		1																				
OTHER AND UNSPECIFIED LEUKEMIA	207-208	9	6					1							1								
TOTAL MALIGNANT NEOPLASMS	140-208	815	626			3	2	2	2	4		1	1		1	4	5	8	2	7	5	8	18

TABLE 36 (CONT'D)

TOTAL RECORDED DEATHS FROM MALIGNANT NEOPLASM BY MAJOR AND SELECTED SITES, SEX, AND AGE
STATE OF HAWAII 1986

UNKNOWN SEX IN MALE CATEG.		40-44 YRS.		45-49 YRS.		50-54 YRS.		55-59 YRS.		60-64 YRS.		65-69 YRS.		70-74 YRS.		75-79 YRS.		80-84 YRS.		OVER 84		UNKNOWN	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
BUCCAL CAVITY AND PHARYNX	140-149	1	1	1		1	1	4	1	7	1	6		3	4	2	3	1	2	1			
LIP	140																						
TONGUE	141		1	1					1						1	1	2		1				
SALIVARY GLAND	142									1													
GUM	143																						
FLOOR OF MOUTH	144							1		1													
OTHER & UNSPEC PARTS OF MOUTH	145	1								1		1		1									
OROPHARYNX	146											1		1	1								
NASOPHARYNX	147						1	1		2		1			1		1	1	1				
HYPOPHARYNX	148					1		1		2					1					1			
UNSPECIF BUCCAL CAVITY AND PHARYNX	149							1			1	3		1		1							
DIGESTIVE ORGANS & PERITONEUM	150-159	5	2	2	10	18	6	20	15	44	21	53	19	42	32	41	27	35	15	17	21		
ESOPHAGUS	150					2		2	2	4	1	1		2	2	2		3					
STOMACH	151	2	1		2	3	2	2	3	12	7	14	2	10	11	7	4	8	6	7	7		
SMALL INTESTINE & DUODENUM	152																						
LARGE INTESTINE	153			1	4	3	2	6	5	12	3	24	9	12	6	13	8	11	2	6	2		
RECTUM & RECTOSIGMOID JUNCTION	154		1		1	1	1	3	2	6	3	5	1	5	2	7	2	3			6		
LIVER AND INTRAHEPATIC BILE DUCTS	155	1		1	1	3	1	3	2	2	1	4	1	3	1	3	3	3	2	1	2		
GALL BLADDER & BILE DUCTS	156					1				2	1		2	3		3	2	1	2				
PANCREAS	157	2			2	5		4	1	6	5	5	4	5	10	6	8	6	2	3	2		
PERITONEUM & RETROPERITUNEAL TISS	158																		1		1		
UNSPEC DIGESTIVE ORGANS	159													2							1		
RESPIRATORY SYSTEM	160-165	0	4	4	5	15	2	32	11	43	22	40	19	37	28	27	21	21	8	9	3		
NOSE,NASAL CAV, MIDDLE EAR & ACCES	160										1				1			1					
LARYNX	161					1		1		1	1			2		2		1					
TRACHEA, BRONCHUS & LUNG	162	5	4	4	5	14	2	31	11	42	19	38	19	35	27	25	21	19	7	9	3		
OTHER AND UNSPECIFIED ORGANS	163-165	1									1	2							1				
BONE, CONN TISSUE, SKIN BREAST	170-175	2	6	2	8		9	1	12	2	16	2	13	1	13	3	11	2	9	1	9		
BONE	170						1			2						1	1				1		
CONNECTIVE & OTHER SOFT TISSUE	171	1		2									2				1						
MELANOMA OF SKIN	172							1	1							2		1	2				
NEOPLASM OF SKIN	173											2		1				1		1	1		
BREAST	174-175	1	6		8		8		11		16		11		13		9		7		7		
GENITOURINARY ORGANS	179-189		3	1	3	1	3	5	9	9	10	15	13	21	14	19	8	24	7	21	11		
CERVIC UTERI	180				3				1		1				2		1				1		
PLACENTA	181																						
OTHER MALIG NEOPLASM OF UTERUS	179,182						1		1		3		3		4		2		1		2		
OVARY, FALLUP TUBE & BROAD LIGAM	183		2				1		7		4		8		6		4						
OTHER & UNSPEC FEMALE GENITAL ORG	184																		1		2		
PROSTATE	185							2		4		0		14		17		18		20			
TESTIS	186			1																			
OTHER & UNSPEC MALE GENITAL ORGAN	187																			1			
BLADDER	188							2				3	1	6	2	1		2	2		6		
OTHER & UNSPEC URINARY ORGANS	189		1			1	1	1		5	2	6	1	1		1	1	4	3				
OTHER AND UNSPECIFIED SITES	190-199		2	1	3	7	2	4	8	10	3	8	9	6	7	6	9	7	6	1	6		
EYE	190																						
BRAIN	191		1			3			3	3	1	2	2		2	1	1		1				
OTHER PARTS OF NERVOUS SYSTEM	192								1														
THYROID GLAND	193						1											1	1				
OTHER ENDOCRINE GLANDS	194																1						
ILL-DEFINED SITES	195																						
SECONDARY & UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES	196					1				1									2		1		
SECONDARY MALIGNANT NEOPLASM OF RESPIRATORY & DIGESTIVE SYSTEMS	197																						
OTHER SECONDARY MALIG NEOPLASM	198																						
WITHOUT SPECIFICATION OF SITE	199		1	1	3	3	1	4	4	6	2	6	7	6	5	5	6	6	2	1	5		
LYMPHATIC & HEMATOPOIETIC TISS	200-208	2		2	1	3	1	7	6	8	6	5	5	12	7	5	8	10	3	4	8		
LYMPHOSARCOMA & RETIC-CELL SARCO	200			1				1		1			3	1			2			2	1		
HODGKINS DISEASE	201					1			1														
OTHER NEOPLASMS OF LYMPHOID TISS	202	1						4	4	3	1	2		5	4	4	1	5	1		4		
MULTIPLE MYELOMA	203	1					1				1	1	1	2			4	2		1			
LYMPHATIC LEUKEMIA	204								1		1							1			1		
MYELOID LEUKEMIA	205			1	1	1		1		3	2		1	3	2	1		1			1		
MONOCYTIC LEUKEMIA	206																				1		
OTHER AND UNSPECIFIED LEUKEMIA	207-208					1		1		1	1	2		1	1		1	1	2	1			
TOTAL MALIGNANT NEOPLASMS	140-208	16	18	13	30	45	24	73	62	123	79	129	78	122	105	103	86	100	50	54	58		

TABLE 37

HAWAII RESIDENT DEATHS OCCURRING OUTSIDE THE STATE BY RACE, AGE, AND SEX*
1986

AGE	TOTAL	TOTAL		CAUCASIAN		JAPANESE		CHINESE		FILIPINO		HAWAIIAN PT HAW'N		KOREAN		BLACK		OTHER PAC. IS.		OTHER & UNK	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
TOTAL	49	30	19	20	16	2	2	3		3		1				1			1		
UNDER 1	3	1	2		2											1					
1 - 19	4	3	1	3	1																
20 - 24	2		2		1														1		
25 - 34	6	6		5				1													
35 - 44	1	1								1											
45 - 54	1		1		1																
55 - 64	7	4	3	3	3							1									
65 - 74	14	8	6	7	5	1	1														
75 - 84	8	7	1	2		1	1	2		2											
85 & OVER	3		3		3																

*INCLUDES DEATHS OCCURRING IN THE UNITED STATES, GUAM, AND CANADA.

TABLE 38

TOTAL RECORDED DEATHS BY ISLAND OF OCCURRENCE, BY METHOD OF DISPOSITION AND AUTOPSY PERFORMED
STATE OF HAWAI 1986

ISLAND OF OCCURRENCE	METHOD OF DISPOSITION								AUTOPSY PERFORMED						PRESUMPTIVE DEATHS
	TOTAL	BURIAL	CREMATION	REMOVAL	ENTOMBMENT	EDUC. PURPOSE	OTHER	UNK.	PRIV. PHY. TOTAL	PRIV. PHY. YES	MED.EX./COR.PHY. TOTAL	MED.EX./COR.PHY. YES	OTHER TOTAL	OTHER YES	
TOTAL	6171	2512	3002	614	41			2	5164	394	1001	752	3		3
HAWAII	676	305	316	49	6				510	18	166	158			
OAHU	4670	1838	2313	484	35				4038	355	629	406	2		1
KALAWAO COUNTY	1	1							1						
KAUAI	303	143	138	21				1	251	15	50	45	1		1
NIIHAU															
LANAI	9	7	1	1					5		4	4			
MAUI	476	198	223	55					330	6	146	133			
MOLOKAI (EXCL OF KALAWAO)	36	20	11	4				1	29		6	6			1
UNKNOWN															

FIGURE 3
INFANT DEATHS IN HAWAII 1900-1986

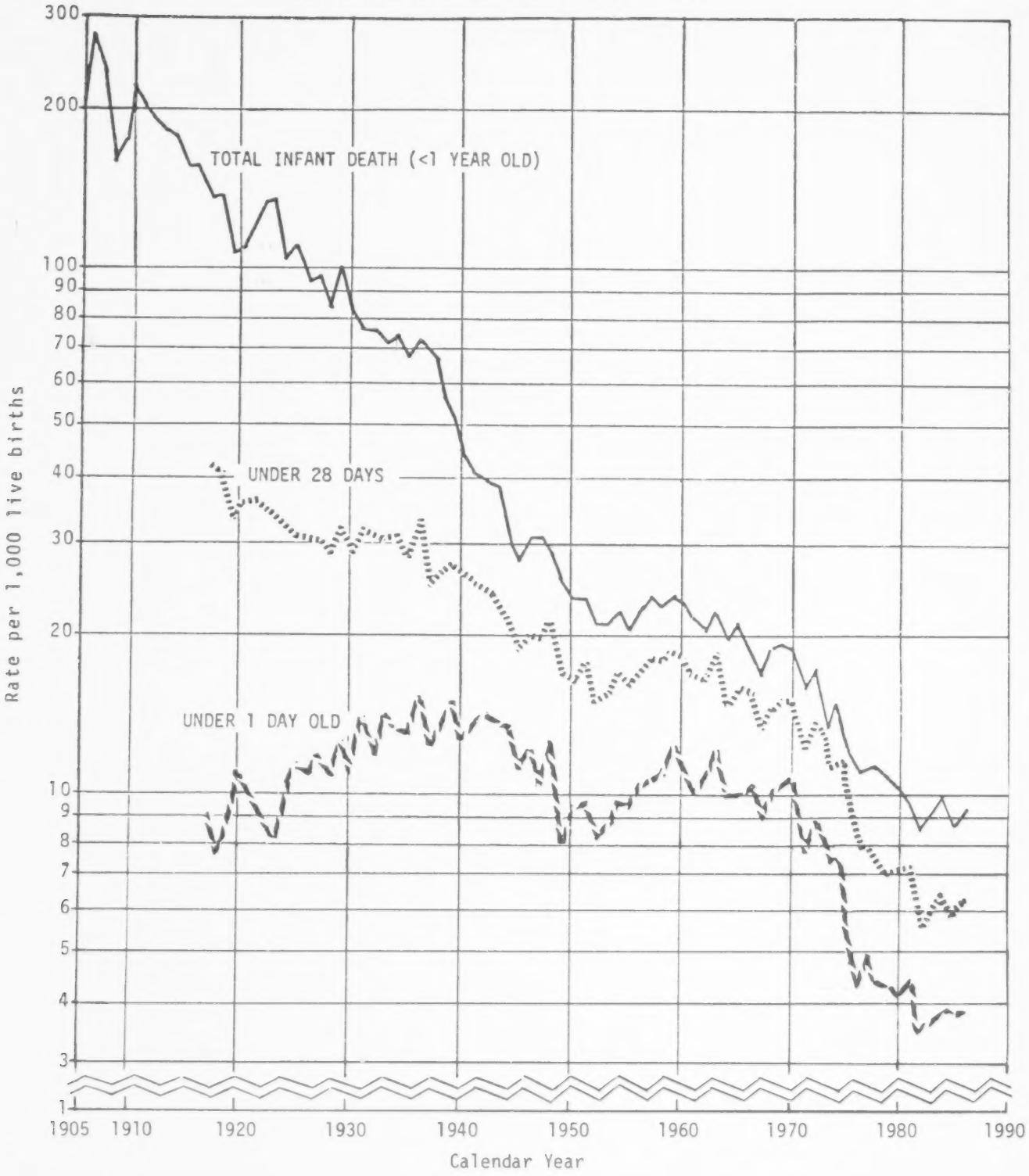


TABLE 39

INFANT DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE BY RACE OF CHILD
STATE OF HAWAII, 1986

GEOGRAPHIC AREA		TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE		PERINATAL MORTALITY		RACE OF CHILD												
		NO.	RATE a/	NO.	RATE a/	NO.	RATE b/	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKN
TOTAL RECORDED		176	9.6	176	9.6	274	14.7	34	2	58	4	23	22	4	6	7	9		1	6	
STATE OF HAWAII	NUMBER	176	9.6	168	9.2	268	14.5	33	2	58	4	22	21	4	5	6	9		1	3	
	RATE a/	9.6		9.2				7.7	31.7	10.3	5.7	8.0	8.9	29.0	17.4	12.8	10.6		14.3	6.2	
COUNTY OF HAWAII		2	1.2	12	6.7	18	9.9	3		6		2		1							
CITY OF HILO		2	1.8	2	3.6	5	8.9	1		1											
BALANCE OF CTY				10	8.0	13	10.3	2		5		2		1							
COUNTY OF HONOLULU		168	11.7	140	9.9	221	15.5	25	1	48	4	17	19	3	5	6	9		1	2	
CITY OF HONOLULU		152	11.8	52	9.4	85	15.2	7	1	13	2	8	6	1	5	3	3		1	2	
BALANCE OF CTY		16	10.4	88	10.3	136	15.6	18		35	2	9	13	2		3	6				
COUNTY OF KALAWAO																					
COUNTY OF KAUAI		2	2.5	6	7.3	10	12.0	2		3			1								
ISLAND OF KAUAI		2	2.5	6	7.4	10	12.1	2		3			1								
ISLAND OF NIIHAU																					
COUNTY OF MAUI		4	2.8	10	6.4	19	12.1	3	1	1		3	1							1	
ISLAND OF LANAI																					
ISLAND OF MAUI		3	2.3	9	6.5	18	12.8	3		1		3	1							1	
ISLAND OF MOLOKAI (EXCL. KALAWAO)		1	18.9	1	7.4	1	7.4		1												
NON-RESIDENT				8	93.0	6	65.2	1				1	1		1	1				3	
UNKNOWN																					

a/NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
b/RESIDENT INFANT DEATHS UNDER 1 WEEK OF AGE AND FETAL DEATHS OF 20 WEEKS OR MORE GESTATION DIVIDED BY THE SUM OF TOTAL RESIDENT LIVE BIRTHS PLUS RESIDENT FETAL DEATHS OF 20 WEEKS OR MORE GESTATION PER 1,000

TABLE 40

RESIDENT INFANT DEATHS BY AGE AND RACE OF MOTHER
STATE OF HAWAII, 1986

AGE OF MOTHER		ALL RACES		RACE OF MOTHER														
		NO.	RATE*	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKN
ALL AGES	NUMBER	168	9.2	32	3	43	6	24	23	4	3	6	8	2	1	3	10
	RATE*	9.2		5.7	21.9	10.6	9.0	8.0	9.3	34.5	7.7	12.6	12.8	9.0	13.3	6.9	
UNDER 15																	
15 - 17		13	26.6	1		7		2	2					1			
18 - 19		10	8.1	1	1	4		3		1							
20 - 24		41	7.5	9	1	14	1	6	2			2	4			2	
25 - 29		43	7.8	11		12	1	2	9	3	2	2	1				
30 - 34		27	7.0	6	1	2	2	5	7		1	2		1			
35 - 39		19	13.2	4		4	2	2	3				2		1	1	
40 - 44		5	26.0					4					1			1	
45 & OVER																	
UNKNOWN		10															10

* NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

TABLE 41

RESIDENT INFANT DEATHS BY RACE OF MOTHER AND MONTH OF FIRST PRENATAL VISIT
STATE OF HAWAII, 1986

RACE OF MOTHER		NO.	RATE*	MONTH OF FIRST PRENATAL VISIT										
				1ST	2ND	3RD	4TH	5TH	6TH	7TH	8TH	9TH	NONE	UNKNOWN
ALL RACES	NUMBER	168	9.2	24	54	25	17	5	2	1	1		12	27
	RATE*	9.2		8.0	7.7	6.4	10.8	5.3	3.2	2.7	3.4			
CAUCASIAN		32	5.7	6	12	6	1						3	4
HAWAIIAN		3	21.9		1						1			1
PART HAWAIIAN		43	10.6	7	11	11	4	1	1				3	5
CHINESE		6	9.0		5	1								
FILIPINO		24	8.0	2	8	2	7	2	1				1	1
JAPANESE		23	9.3	4	7	4	3	1					1	3
PUERTO RICAN		4	34.5	1	1								2	
KOREAN		3	7.7	1		1								1
SAMOAN		6	12.6		2		2							2
NEGRO		8	12.8	2	4			1					1	
PORTUGUESE		2	9.0	1	1									
VIETNAMESE		1	13.3		1									
OTHER RACES		3	6.9		1					1			1	
UNKNOWN		10												10

* NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS

TABLE 42

RESIDENT INFANT MORTALITY BY RACE OF CHILD AND AGE, LOW BIRTH WEIGHT INFANT DEATHS
STATE OF HAWAII, 1986

RACE OF CHILD	NUMBER OF INFANT DEATHS AGE AT DEATH (DAYS)					INFANT DEATH RATE a/					LOW BIRTH WEIGHT INFANTS WHO DIED b/	
	TOTAL	UNDER 1 DAY	1-6	7-27	28 DAYS TO 11 MOS	TOTAL	UNDER 1 DAY	UNDER 1 WEEK	UNDER 28 DAYS	28 DAYS TO 11 MOS	NO.	RATE c/
ALL RACES	168	70	33	13	52	9.2	3.8	5.6	6.4	2.8	110	101.5
CAUCASIAN	33	13	5	2	13	7.7	3.0	4.2	4.7	3.0	20	109.9
HAWAIIAN	2	1			1	31.7	15.9	15.9	15.9	15.9	1	200.0
PART HAWAIIAN	58	26	11	5	16	10.3	4.6	6.6	7.5	2.9	40	107.2
CHINESE	4		2	1	1	5.7		2.8	4.3	1.4	2	52.6
FILIPINO	22	9	7	1	5	8.0	3.3	5.8	6.2	1.8	12	55.0
JAPANESE	21	9	4	3	5	8.9	3.8	5.5	6.8	2.1	14	105.3
PUERTO RICAN	4	3	1			29.0	21.7	29.0	29.0		4	266.7
KOREAN	5	2		1	2	17.4	6.9	6.9	10.4	6.9	4	307.7
SAMOAN	6	3	1		2	12.8	6.4	8.5	8.5	4.3	4	363.6
NEGRO	9	3	1		5	10.6	3.5	4.7	4.7	5.9	6	98.4
PORTUGUESE												
VIETNAMESE	1				1	14.3				14.3	1	142.9
OTHER RACES	3	1	1		1	6.2	2.1	4.2	4.2	2.1	2	95.2
UNKNOWN												

a/NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
b/INFANTS OF LESS THAN 2500 GRAMS (5 LBS. 8 OZ.) ARE CONSIDERED LOW BIRTH WEIGHT
c/NUMBER OF DEATHS PER 1,000 LOW BIRTH WEIGHT LIVE BIRTHS

TABLE 43

RESIDENT INFANT MORTALITY BY SELECTED CAUSES BY BIRTH WEIGHT, SEX AND AGE, NEONATAL DEATHS
STATE OF HAWAII, 1986

CAUSE OF DEATH[a]	TOTAL			BIRTH WEIGHT			SEX			AGE AT DEATH				NEONATAL DEATHS[c]	
	NO.	RATE[b]	PER CENT	2500 GMS UNDER	OVER 2500 GMS	UNK	MALE	FEMALE	UNK	UNDER 1 DAY	1-6 DAYS	7-27 DAYS	28 DAYS TO 11 MOS	NO.	RATE[b]
ALL CAUSES	168	9.2	100.0	110	45	13	104	64		70	33	13	52	116	6.4
INTESTINAL INFECTIVE DISEASES (001-009)															
OTHER INFECTIVE DISEASES (010-139)	4	0.2	2.4	3	1		3	1		2	1	1		4	0.2
INFECTIONS OF NEWBORN (771)	3	0.2	1.8	1	2		2	1		2	1			3	0.2
MENINGITIS (320-322)															
PNEUMONIA (480-486,7700)	4	0.2	2.4		1	3	2	2			1		3	1	0.1
CONGENITAL ANOMALIES OF CIRCULATORY SYST (745-747)	17	0.9	10.1	5	10	2	11	6		1	13	2	1	16	0.9
OTHER CONG ANOMAL (740-759)	25	1.4	14.9	17	7	1	16	9		13	2		10	15	0.8
MATERNAL CONDITIONS UNRELATED TO PREGNANCY (760)															
COMPLICATIONS OF PREGNANCY (761)	2	0.1	1.2	2			1	1		2				2	0.1
COMPLICATIONS OF PLACENTA CORD & MEMBRANE (762)	2	0.1	1.2	2			2			2				2	0.1
OTHER COMPLICATIONS OF LABOR AND DELIVERY (763)															
BIRTH INJURY (767)	1	0.1	.6	1				1		1				1	0.1
HEMOLYTIC DISEASE OF NEWBORN (773)															
RESPIRATORY DISTRESS SYNDROME (769)	23	1.3	13.7	22	1		14	9		10	10	2	1	22	1.2
ASPHYXIA & HYPOXIA (768)	1	0.1	.6		1			1			1			1	0.1
IMMATURITY (765)	29	1.6	17.3	27		2	18	11		28	1			29	1.6
OTHER PERINATAL (760-779)	23	1.3	13.7	18	3	2	13	10		8	3	5	7	16	0.9
SUDDEN INFANT DEATH SYNDROME (7980)	23	1.3	13.7	4	17	2	14	9					23		
ACCIDENTS (800-949)	1	0.1	.6			1	1						1		
OTHER EXTERNAL CONDITIONS (950-959)															
ALL OTHER CONDITIONS-RESIDUAL	10	0.5	6.0	8	2		7	3		1		3	6	4	0.2

[a] 9TH ICD
[b] NUMBER OF INFANT DEATHS PER 1,000 LIVE BIRTHS
[c] DEATHS UNDER 28 DAYS OLD

TABLE 44

STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER AND GESTATION PERIOD
STATE OF HAWAII, 1986

GEOGRAPHIC AREA		TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE			GESTATION PERIOD IN WEEKS										
		NO.	RATIO[a]	NO.	RATIO[a]	RATE[b]	UNDER 12	12	13	14	15	16-19	20-27	28-35	36-39	40 & OVER	UNKN
TOTAL RECORDED		1,478	80.6	1,478	80.6	74.6	934	114	48	52	20	91	73	41	36	21	48
STATE OF HAWAII	NUMBER	1,478	80.6	1,411	77.3	71.8	890	108	44	51	19	86	70	40	35	21	47
	PERCENT			100.0			63.1	7.7	3.1	3.6	1.3	6.1	5.0	2.8	2.5	1.5	3.3
COUNTY OF HAWAII		141	81.5	146	81.1	75.0	107	13		4	1	7	7		3	3	1
CITY OF HILO		135	119.8	66	118.9	106.3	51	4		1	1	4	3			2	
BALANCE OF COUNTY		6	9.9	80	64.3	60.4	56	9		3		3	4		3	1	1
COUNTY OF HONOLULU		1,097	76.1	1,039	73.8	68.7	626	79	36	38	15	68	56	34	27	17	43
CITY OF HONOLULU		958	74.4	462	83.8	77.4	295	31	14	21	7	20	24	16	8	8	18
BALANCE OF COUNTY		139	90.3	577	67.4	63.1	331	48	22	17	8	48	32	18	19	9	25
COUNTY OF KALAWAO																	
COUNTY OF KAUAI		88	111.8	82	99.8	90.7	48	9	3	5		9	3	2	1	1	1
ISLAND OF KAUAI		88	112.0	82	100.5	91.3	48	9	3	5		9	3	2	1	1	1
ISLAND OF NIIHAU																	
COUNTY OF MAUI		152	108.2	144	92.5	84.7	109	7	5	4	3	2	4	4	4		2
ISLAND OF LANAI																	
ISLAND OF MAUI		152	114.0	140	100.5	91.3	108	6	5	4	3	1	3		4		2
ISLAND OF MOLOKAI				4	29.6	28.8	1	1				1	1				
NON-RESIDENT				67	779.1	437.9	44	6	4	1	1	5	3	1	1		1
UNKNOWN																	

[a] NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
[b] NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

TABLE 45

STANDARD FETAL DEATHS BY PLACE OF OCCURRENCE REALLOCATED TO USUAL RESIDENCE OF MOTHER BY RACE
STATE OF HAWAII, 1986

GEOGRAPHIC AREA	TOTAL BY PLACE OF OCCURRENCE		TOTAL BY PLACE OF RESIDENCE			RACE OF FETUS												
	NO.	RATIO a/	NO.	RATIO a/	RATE b/	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERRCAN	KOREAN	SAMOAN	NEGRO	PORTGESE	VIETMESE	OTHER	UNKN
TOTAL RECORDED	1478	80.6	1478	80.6	74.6	469	27	289	34	222	203	13	26	19	26	9	6	34	101
STATE OF HAWAII NUMBER	1478	80.6	1411	77.3	71.8	424	27	289	34	219	198	13	25	18	25	9	6	34	90
STATE OF HAWAII RATIO a/	80.6		77.3			99.1	428.6	51.5	48.2	79.7	83.9	94.2	86.8	38.4	29.4	47.4	85.7	70.7	
STATE OF HAWAII RATE b/	74.6		71.8			90.2	300.0	49.0	46.0	73.8	77.4	86.1	79.9	37.0	28.5	45.2	78.9	66.0	
COUNTY OF HAWAII	141	81.5	146	81.1	75.0	43	1	52		23	15	1			3	3		5	
CITY OF HILO	135	119.8	66	118.9	106.3	12		26		12	10	1				3		2	
BALANCE OF COUNTY	6	9.9	80	64.3	60.4	31	1	26		11	5				3			3	
COUNTY OF HONOLULU	1097	76.1	1039	73.8	68.7	308	19	192	32	155	145	6	25	18	21	5	6	25	82
CITY OF HONOLULU	958	74.4	462	83.8	77.4	135	5	77	22	63	77	1	21	8	7	2	4	12	28
BALANCE OF COUNTY	139	90.3	577	67.4	63.1	173	14	115	10	92	68	5	4	10	14	3	2	13	54
COUNTY OF KALAWAO																			
COUNTY OF KAUAI	88	111.8	82	99.8	90.7	24	2	19	1	19	12	2			1	1			1
ISLAND OF KAUAI	88	112.0	82	100.5	91.3	24	2	19	1	19	12	2			1	1			1
ISLAND OF NIIHAU																			
COUNTY OF MAUI	152	108.2	144	92.5	84.7	49	5	26	1	22	26	4						4	7
ISLAND OF LANAI																			
ISLAND OF MAUI	152	114.0	140	100.5	91.3	49	4	23	1	22	26	4						4	7
ISLAND OF MOLOKAI			4	29.6	28.8		1	3											
NON-RESIDENT			67	779.1	437.9	45				3	5		1	1	1				11
UNKNOWN																			

a/NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS
b/NUMBER OF FETAL DEATHS PER 1,000 DELIVERIES (LIVE BIRTHS AND STANDARD FETAL DEATHS)

TABLE 46

STANDARD FETAL DEATHS BY CAUSE AND GESTATION PERIOD
STATE OF HAWAII, 1986

CAUSE	CODE*	TOTAL		GESTATION PERIOD IN WEEKS										
		NUMBER	PERCENT	UNDER 12	12	13	14	15	16-19	20-27	28-35	36-39	40 & OVER	UNKN
ALL CAUSES	ALL	1,478	100.0	934	114	48	52	20	91	73	41	36	21	48
SPONTANEOUS ABORTION	7618	653	44.2	453	73	26	28	7	38	6				22
ALL OTHER ABORTIONS	7796	286	19.4	205	18	15	13	5	20	2			1	7
CONGENITAL ANOMALIES	740-759	7	.5							2	2	3		
CHRONIC CIRCULATORY, RESPIRATORY, AND GENITOURINARY DISEASES IN THE MOTHER	7600,7601,7603	8	.5	1							5	2		
MATERNAL CONDITIONS UNRELATED TO PREGNANCY	7602,7604-7609	9	.6	3					2	3	1			
COMPLICATIONS OF PREGNANCY AND CHILDBIRTH	7610-7617,7619	216	14.6	169	7		1		4	15	4		1	15
DIFFICULT LABOR WITH OR WITHOUT MENTION OF BIRTH INJURY	763	2	.1	1							1			
COMPLICATIONS OF PLACENTA, CORD AND MEMBRANES	762	70	4.7	8	2	1	3	3	5	14	12	11	9	2
BIRTH INJURY WITHOUT MENTION OF CAUSE	767													
HEMOLYTIC DISEASE OF NEWBORN	773													
OTHER CONDITIONS OF FETUS	764-766,768-770	6	.4							3	1	1	1	
UNKNOWN	7799	211	14.3	93	13	6	6	5	22	27	13	17	7	2
ALL OTHER CAUSES	RESIDUAL	10	.7	1	1		1			1	2	2	2	

*9TH ICD

TABLE 47
STANDARD FETAL DEATHS BY AGE OF MOTHER AND GESTATION PERIOD
STATE OF HAWAII, 1986

AGE OF MOTHER IN YEARS	TOTAL			GESTATION PERIOD IN WEEKS: NUMBER											GESTATION PERIOD IN WEEKS: PERCENT						
	NO.	RATIO*	PER-CENT	<12	12	13	14	15	16 TO 19	20 TO 27	28 TO 35	36 TO 39	40 & OVER	UNKN	UNDER 12	UNDER 20	UNDER 28	UNDER 36	36 TO 39	40 & OVER	UNKN
ALL AGES	1,478	81.0	100.0	934	114	48	52	20	91	73	41	36	21	48	63.2	85.2	90.1	92.9	2.4	1.4	3.2
UNDER 15	1	55.6	.1	1											100.0	100.0	100.0	100.0			
15 - 17	28	57.4	1.9	17				2	2	2			1	4	60.7	75.0	82.1	82.1		3.6	14.3
18 - 19	78	62.9	5.3	38	8	1	4		13	8	2	2		2	48.7	82.1	92.3	94.9	2.6		2.6
20 - 24	311	56.8	21.0	172	24	12	9	8	20	26	11	14	4	11	55.3	78.8	87.1	90.7	4.5	1.3	3.5
25 - 29	399	72.0	27.0	266	27	12	17	2	20	16	12	8	6	13	66.7	86.2	90.2	93.2	2.0	1.5	3.3
30 - 34	386	99.8	26.1	248	35	15	12	5	22	12	12	7	8	10	64.2	87.3	90.4	93.5	1.8	2.1	2.6
35 - 39	207	144.4	14.0	144	13	6	5	3	10	9	4	5	2	6	69.6	87.4	91.8	93.7	2.4	1.0	2.9
40 - 44	62	322.9	4.2	42	7	2	5		4					2	67.7	96.8	96.8	96.8			3.2
45 - 49	5	1666.7	.3	5											100.0	100.0	100.0	100.0			
50 & OVER																					
UNKNOWN	1		.1	1											100.0	100.0	100.0	100.0			

*NUMBER OF FETAL DEATHS PER 1,000 LIVE BIRTHS

TABLE 48
STANDARD FETAL DEATHS BY RACE OF MOTHER AND AGE OF MOTHER
STATE OF HAWAII, 1986

ALL RACES		NO.	PER CENT	RACE OF MOTHER														
				CAUCSIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERRCAN	KOREAN	SAMOAN	NEGRO	PORTGESE	VIETMESE	OTHER	UNKN
	NUMBER	1478	100.0	469	28	255	44	228	201	11	31	23	24	16	6	36	106
	PERCENT	100.0		31.7	1.9	17.3	3.0	15.4	13.6	.7	2.1	1.6	1.6	1.1	.4	2.4	7.2
UNDER 15		1	.1			1											
15 - 17		28	1.9	3	1	11	2	6						1		1	3
18 - 19		78	5.3	18	2	27		9	2	3	1	1	4	2		4	5
20 - 24		311	21.0	87	9	75	4	51	31		2	5	6	7	1	9	22
25 - 29		399	27.0	121	8	74	12	60	44	2	9	8	6	3	2	11	39
30 - 34		386	26.1	133	5	46	14	60	73	4	9	7	4	3	1	7	20
35 - 39		207	14.0	81	2	14	11	35	38	1	8	2	2		1	2	10
40 - 44		62	4.2	23	1	7	1	6	12	1	2				1	2	6
45 - 49		5	.3	2				1	1								1
50 & OVER																	
UNKNOWN		1	.1	1													

TABLE 49
ELECTIVE ABORTIONS BY RACE OF MOTHER AND AGE OF MOTHER
STATE OF HAWAII, 1986

MOTHERS AGE IN YEARS		NO.	PERCENT	ABORTIONS PER 1000 LIVE BIRTHS	RACE OF MOTHER													
					CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	NEGRO	SAMOAN	VIETNAMESE	PORTUGESE	OTHER RACES	UNKNOWN
	NUMBER	5,700		312.3	1806	131	797	194	829	807	30	245	109	104	31	42	162	413
	PERCENT		100.0		31.7	2.3	14.0	3.4	14.5	14.2	.5	4.3	1.9	1.8	.3	.7	2.8	7.2
UNDER 15		47	.8	2,611.1	12	1	9		11	8			1	2				3
15 - 17		512	9.0	1,049.2	137	15	85	14	66	94	3	10	11	3	3	8	15	48
18 - 19		678	11.9	546.8	183	14	118	19	112	97	3	14	12	15	4	8	23	56
20 - 24		1,833	32.2	334.9	554	52	318	54	284	242	11	31	45	40	9	15	44	134
25 - 29		1,281	22.5	231.3	438	31	172	39	173	166	6	69	23	29	5	4	32	94
30 - 34		807	14.2	208.7	276	10	66	38	120	114	3	72	13	8	4	6	30	47
35 - 39		424	7.4	295.7	162	7	24	21	43	68	4	39	4	6	6		15	25
40 - 44		111	1.9	578.1	42	1	5	8	19	17		9				1	3	6
45 - 49		4	.1	1,333.3	1			1	1			1						
50 & OVER																		
UNKNOWN		3	.1		1					1				1				

TABLE 50
ELECTIVE ABORTIONS BY AGE OF MOTHER AND LENGTH OF GESTATION PERIOD
STATE OF HAWAII, 1986

AGE OF MOTHER	TOTAL	UNDER 6	GESTATION PERIOD IN WEEKS																
			6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21 & OVER	UNKN
ALL AGES	5,700	184	922	820	1,275	569	659	293	296	157	132	72	80	57	87	62	16	15	4
UNDER 15	47		2	6	7	2	4	5	2	4	4	1	6		1	2		1	
15 - 17	512	9	61	60	91	62	69	32	32	17	15	13	10	5	15	11	5	4	1
18 - 19	678	19	91	85	138	75	80	40	39	31	16	12	18	7	18	7		2	
20 - 24	1,833	59	277	261	423	167	208	96	108	56	53	23	19	23	27	23	7	3	
25 - 29	1,281	37	229	186	303	123	158	69	63	30	25	8	12	10	15	7	1	3	2
30 - 34	807	30	135	136	201	93	86	36	31	10	10	11	8	7	5	7		1	
35 - 39	424	24	95	72	93	36	41	12	16	5	4	4	6	4	5	4	2	1	
40 - 44	111	6	30	14	17	11	12	3	4	4	4		1	1	1	1	1		1
45 - 49	4		1		1				1		1								
50 & OVER																			
UNKNOWN	3		1		1		1												

TABLE 51
ELECTIVE ABORTIONS BY LEGITIMACY AND RACE OF MOTHER
STATE OF HAWAII, 1986

LEGITIMACY STATUS /	RACE OF MOTHER													
	TOTAL	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	NEGRO	SAMOAN	PORTUGESE	VIETNAMESE	OTHER RACES	UNKNOWN
TOTAL	5,700	1,806	131	797	194	829	807	30	245	109	104	31	42	162	413
LEGITIMATE	1,273	317	15	166	60	274	160	5	73	22	25	11	16	47	82
ILLEGITIMATE	3,998	1,320	112	592	122	509	561	23	146	75	73	19	23	99	324
UNKNOWN	429	169	4	39	12	46	86	2	26	12	6	1	3	16	7

TABLE 52
ELECTIVE ABORTIONS BY LEGITIMACY STATUS AND AGE OF MOTHER
STATE OF HAWAII, 1986

LEGITIMACY STATUS	AGE OF MOTHER IN YEARS											
	TOTAL	UNDER 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50 & OVER	UNKNOWN
TOTAL	5,700	47	512	678	1,833	1,281	807	424	111	4		3
LEGITIMATE	1,273		4	41	305	367	311	181	60	3		1
ILLEGITIMATE	3,998	45	437	562	1,412	824	451	218	47			2
UNKNOWN	429	2	71	75	116	90	45	25	4	1		

TABLE 53
ELECTIVE ABORTIONS BY TYPE OF PROCEDURE AND GESTATION PERIOD
STATE OF HAWAII, 1986

TYPE OF PROCEDURE	GESTATION PERIOD IN WEEKS														
	TOTAL	UNDER 6	6	7	8	9	10	11	12	13	14	15	16	17-19	20 & OVER	UNKN
TOTAL	5,700	184	922	820	1,275	569	659	293	296	157	132	72	80	206	31	4
SUCTION CURETTAGE	5,618	184	919	818	1,273	567	657	293	295	156	130	62	63	171	26	4
SHARP D & C	4		1			2					1					
AMNIOTIC FLUID EXCHANGE																
HYSTEROTOMY																
HYSTERECTOMY																
PROSTAGLANDIN	38										1	6	13	16	2	
OTHER	33				1		1			1		4	4	19	3	
NOT STATED	2		1		1											
UNKNOWN	5		1	2			1		1							

TABLE 54
ELECTIVE ABORTIONS BY COUNTY OF RESIDENCE AND COUNTY OF OCCURRENCE
STATE OF HAWAII, 1986

COUNTY OF RESIDENCE					COUNTY OF OCCURRENCE																
					COUNTY OF HAWAII				COUNTY OF HONOLULU				COUNTY OF KAUAI			COUNTY OF MAUI					
		NO.	PER-CENT	ABORTIONS PER 1,000 LIVE BIRTHS	TOTAL	TOT	HILO CITY	BAL	TOT	HON CITY	BAL	KALAWAO CNTY	TOT	KAUAI ISL	NIIHAU ISL	TOT	MAUI ISL	LANAI ISL	MOLOKAI ISL	NON RES	UNK
TOTAL RECORDED	NUMBER	5700	100.0	310.8	5696	254	210	44	4895	4055	840		142	142		405	404		1		4
	PERCENT	100.0			99.9	4.5	3.7	.8	85.9	71.1	14.7		2.5	2.5		7.1	7.1				.1
STATE OF HAWAII		5647	99.1	309.4	5643	253	209	44	4847	4014	833		141	141		402	401		1		4
COUNTY OF HAWAII		296	5.2	164.4	296	253	209	44	43	37	6										
CITY OF HILO		134	2.4	241.4	134	115	114	1	19	16	3										
BALANCE OF COUNTY		162	2.8	130.1	162	138	95	43	24	21	3										
COUNTY OF HONOLULU		4601	80.7	326.9	4597				4597	3800	797										4
CITY OF HONOLULU		2708	47.5	491.5	2708				2708	2440	268										
BALANCE OF COUNTY		1893	33.2	221.0	1889				1889	1360	529										4
COUNTY OF KALAWAO																					
COUNTY OF KAUAI		213	3.7	259.1	213				72	51	21		141	141							
ISLAND OF KAUAI		213	3.7	261.0	213				72	51	21		141	141							
ISLAND OF NIIHAU																					
COUNTY OF MAUI		537	9.4	345.1	537				135	126	9					402	401		1		
ISLAND OF MAUI		515	9.0	369.7	515				115	107	9					400	400				
ISLAND OF LANAI		4	.1	142.9	4				3	3						1	1				
ISLAND OF MOLOKAI		18	.3	133.3	18				17	16	1					1			1		
NON-RESIDENT		50	.9	581.4	50	1	1		46	39	7					3	3				
UNKNOWN		3	.1		3				2	2			1	1							

TABLE 55
MARRIAGES BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1986

PLACE OF OCCURR	TOTAL	PERCENT	RATE*	MONTH OF OCCURRENCE												
				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
TOTAL	16,219	100.0	15.3	1,048	1,221	1,196	1,336	1,613	1,519	1,395	1,694	1,291	1,178	1,314	1,410	
PERCENT				6.5	7.5	7.4	8.2	9.9	9.4	8.6	10.4	8.0	7.3	8.1	8.7	
STATE OF HAWAII	16,216	100.0	15.3	1,048	1,221	1,196	1,336	1,613	1,519	1,399	1,694	1,291	1,178	1,314	1,410	
COUNTY OF HAWAII	1,273	7.8	11.5	80	111	116	98	107	129	114	106	86	92	116	118	
CITY OF HILO	418	2.6	9.0	36	36	32	28	29	45	45	47	22	22	30	46	
BAL. OF COUNTY	855	5.3	13.4	44	75	84	70	78	84	69	59	64	70	86	72	
COUNTY OF HONOLUL	10,057	62.0	12.3	738	793	769	777	967	932	880	1,109	746	706	779	891	
CITY OF HONO.	7,378	45.5	19.2	521	591	547	583	723	673	633	796	528	535	588	660	
BAL. OF COUNTY	2,679	16.5	6.2	187	202	222	194	244	259	247	313	218	171	191	231	
COUNTY OF KALAWAO	8		55.2					1	3	1	3					
COUNTY OF KAUAI	2,300	14.2	49.6	117	152	142	207	246	229	187	232	239	178	182	189	
ISL OF KAUAI	2,300	14.2	49.8	117	152	142	207	246	229	187	232	239	178	182	189	
ISL OF NIIHAU																
COUNTY OF MAUI	2,578	15.9	29.5	143	165	169	254	292	226	217	244	220	202	235	211	
ISL OF LANAI	9		3.6	2			2				1		1	1	1	
ISL OF MAUI	2,499	15.4	31.8	137	159	164	249	289	216	211	233	213	196	229	203	
ISL OF MOLOKAI	71	.4	10.7	4	6	5	3	3	10	6	10	7	5	5	7	
UNKNOWN	3													2	1	

*RATE PER 1,000 POPULATION

TABLE 56
MARRIAGES BY AGE OF GROOM AND AGE OF BRIDE
STATE OF HAWAII, 1986

AGE OF GROOM	TOT	PERCENT	AGE OF BRIDE 15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & >	UNK
ALL AGES	16,219	100.0	162	939	4233	4422	2810	1643	869	494	251	156	122	71	31	16	
PERCENT			1.0	5.8	26.1	27.3	17.3	10.1	5.4	3.0	1.5	1.0	.8	.4	.2	.1	
15 - 17	16	.1	5	6	2	3											
18 - 19	333	2.1	46	169	94	16	5	2	1								
20 - 24	3,402	21.0	92	582	2003	540	120	42	19	3	1						
25 - 29	4,015	24.8	14	144	1368	1794	505	145	37	6	1		1				
30 - 34	3,069	18.9	3	26	505	1215	946	275	80	12	1	3	2	1			
35 - 39	2,157	13.3	1	6	169	544	735	496	155	43	5	2	1				
40 - 44	1,236	7.6		5	62	204	319	350	208	68	14	4	1			1	
45 - 49	690	4.3			19	64	104	184	166	115	30	5	1	2			
50 - 54	441	2.7	1		5	27	42	86	100	100	60	16	3		1		
55 - 59	338	2.1			3	10	19	38	67	82	65	34	13	4	2	1	
60 - 64	225	1.4		1	1		10	15	17	38	44	49	34	11	4	1	
65 - 69	146	.9			1	4	2	2	13	20	17	25	35	22	5		
70 - 74	85	.5			1		1	5	3	1	5	13	19	19	13	5	
75 & >	66	.4				1	2	3	3	6	8	5	12	12	6	8	
UNKNOWN																	

MEDIAN AGE OF GROOM WITH KNOWN AGES: 30.6

MEDIAN AGE OF BRIDE WITH KNOWN AGES: 28.1

TABLE 56A
RESIDENT MARRIAGES BY AGE OF GROOM AND AGE OF BRIDE
STATE OF HAWAII, 1986

AGE OF GROOM	AGE OF BRIDE TOTAL	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
TOTAL	9570	158	833	3004	2536	1456	781	364	195	91	63	51	20	9	9
15-17	15	5	6	2	2	0	0	0	0	0	0	0	0	0	0
18-19	312	44	163	83	15	4	2	1	0	0	0	0	0	0	0
20-24	2773	92	518	1596	422	90	36	16	3	0	0	0	0	0	0
25-29	2524	14	120	890	1071	317	83	25	3	1	0	0	0	0	0
30-34	1637	3	19	293	626	493	141	45	11	1	3	1	1	0	0
35-39	1012	0	4	83	265	326	229	77	25	1	1	1	0	0	0
40-44	542	0	3	41	88	143	145	80	28	9	3	1	0	0	1
45-49	258	0	0	9	24	47	75	44	43	11	3	1	1	0	0
50-54	149	0	0	2	13	16	37	32	26	16	5	1	0	1	0
55-59	137	0	0	2	6	8	19	28	29	26	11	4	1	2	1
60-64	76	0	0	1	0	8	6	4	11	12	19	12	2	0	1
65-69	59	0	0	1	3	1	1	7	11	5	8	16	5	1	0
70-74	39	0	0	1	0	1	4	2	1	3	7	8	6	4	2
75 +	37	0	0	0	1	2	3	3	4	6	3	6	4	1	4

TABLE 57

MARRIAGES BY PREVIOUS MARITAL STATUS OF GROOM AND OF BRIDE BY AGE
STATE OF HAWAII, 1986

AGE IN YEARS		GROOM							BRIDE						
		TOTAL	PERCENT	NEVER MARRIED	WIDOWED	DIVORCED	ANNUL-MENT	UNKNOWN	TOTAL	PERCENT	NEVER MARRIED	WIDOWED	DIVORCED	ANNUL-MENT	UNKNOWN
TOTAL	NUMBER	16,219	100.0	9,666	469	6,042	42		16,219	100.0	9,801	449	5,923	45	1
	PERCENT	100.0	...	59.6	2.9	37.3	.3		100.0	...	60.4	2.8	36.5	.3	
15 - 17		16	.1	16					162	1.0	162				
18 - 19		333	2.1	333					939	5.8	921		18		
20 - 24		3,402	21.0	3,230	1	169	2		4,233	26.1	3,842	4	380	6	1
25 - 29		4,015	24.8	3,316	6	684	9		4,422	27.3	3,128	17	1,264	13	
30 - 34		3,069	18.9	1,805	15	1,241	8		2,810	17.3	1,256	43	1,498	13	
35 - 39		2,157	13.3	668	22	1,460	7		1,643	10.1	353	47	1,235	8	
40 - 44		1,236	7.6	190	21	1,020	5		869	5.4	85	44	738	2	
45 - 49		690	4.3	45	34	606	5		494	3.0	25	50	416	3	
50 - 54		441	2.7	21	37	382	1		251	1.5	10	36	205		
55 - 59		338	2.1	19	70	246	3		156	1.0	8	54	94		
60 - 64		225	1.4	10	88	127			122	.8	10	65	47		
65 - 69		146	.9	7	75	62	2		71	.4	1	52	18		
70 - 74		85	.5	4	52	29			31	.2		24	7		
75 & OVER		66	.4	2	48	16			16	.1		13	3		
UNKNOWN															

TABLE 58

MARRIAGES BY OCCUPATION OF GROOM AND OF BRIDE
STATE OF HAWAII, 1986

CODE OCC OF GROOM	TOTAL	PERCENT	OCCUPATION CODE OF BRIDE											
			0	1	2	3	4	5	6	7	8	9	10	UNKNOWN
TOTAL	16,219	100.0	3,497	2,600	1,510	4,380	1,272	224	208	1,700	7	54	756	11
PERCENT			21.6	16.0	9.3	27.0	7.8	1.4	1.3	10.5		.3	4.7	.1
0 NO OCCUPATION	851	5.2	426	92	34	146	32	5	5	76		4	31	
1 PROF,TECH &KIND	2,929	18.1	313	1,218	288	678	201	33	12	167		7	11	1
2 FARM,MAN &OFFI	2,853	17.6	434	419	552	827	288	36	32	247		8	8	2
3 CLER & KINDRED	807	5.0	137	81	71	344	56	15	5	84		2	12	
4 SALES WORKERS	1,134	7.0	166	182	134	304	226	8	8	94		3	8	1
5 CRAFT,FOREMEN	2,363	14.6	485	268	183	792	156	85	53	307	2	5	24	3
6 OPERATIVES	865	5.3	212	44	60	306	56	16	42	120		2	7	
7 PRI HOUSEHOLD	1,467	9.0	311	141	93	442	103	11	19	326	1	5	13	2
8 FARM LABORERS	23	.1	9	1	2	1	3		2	5		1		
9 LABOR EX FARM	495	3.1	147	32	30	138	36	3	12	73	4	15	5	
10 ARMED FORCES	2,414	14.9	834	119	62	397	113	12	18	200		2	636	1
UNKNOWN	18	.1	3	3	1	5	3			1			1	1

TABLE 59

MARRIAGES BY PREVIOUS MARITAL STATUS OF GROOM AND OF BRIDE
STATE OF HAWAII, 1986

MARR. STAT. GROOM	TOTAL	PERCENT	MARITAL STATUS OF BRIDE				
			NEVER MARRIED	WIDOWED	DIVORCED	ANNULMENT	UNKNOWN
TOTAL	16,219	100.0	9,801	449	5,923	45	1
PERCENT			60.4	2.8	36.5	.3	
NEVER MARRIED	9,666	59.6	7,599	71	1,969	26	1
WIDOWED	469	2.9	55	172	239	3	
DIVORCED	6,042	37.3	2,130	203	3,694	15	
ANNULMENT	42	.3	17	3	21	1	
UNKNOWN							

TABLE 60

MARRIAGES BY NUMBER OF TIMES GROOM AND BRIDE PREVIOUSLY MARRIED
STATE OF HAWAII, 1986

NO. GROOM MARRIED	TOTAL	PERCENT	TIMES PREVIOUSLY MARRIED - BRIDE						
			NONE	1	2	3	4	5 OR >	UNKNOWN
TOTAL	16,219	100.0	9,801	5,102	1,097	194	18	7	
PERCENT			60.4	31.5	6.8	1.2	.1		
NONE	9,666	59.6	7,599	1,804	227	33	2	1	
1	5,096	31.4	1,867	2,565	557	97	10		
2	1,223	7.5	294	624	253	49	2	1	
3	196	1.2	37	86	54	14	3	2	
4	28	.2	2	20	2	1	1	2	
5 & >	10	.1	2	3	4			1	
UNKNOWN									

TABLE 61
MARRIAGES BY RACE AND AGE OF GROOM
STATE OF HAWAII, 1986

RACE OF GROOM	TOT	PERCENT	AGE OF GROOM 15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & >	UNK
ALL RACES	16,219	100.0	16	333	3402	4015	3069	2157	1236	690	441	338	225	146	85	66	
CAUCASIAN	10,094	62.2	6	106	1714	2243	1974	1573	911	538	350	266	179	120	68	46	
HAWAIIAN	100	.6		8	32	19	11	6	14	2	5	2	1				
PART HAWN	1,471	9.1	7	86	502	404	213	111	58	43	24	9	7	4	3		
CHINESE	432	2.7		4	48	140	111	63	26	10	6	9	7	6	2		
FILIPINO	1,203	7.4	1	64	395	326	176	82	50	33	24	14	11	4	7	16	
JAPANESE	1,492	9.2	2	15	213	513	367	195	94	37	16	17	11	5	5	2	
PUERTO RCN	100	.6		4	34	29	16	5	5	1	2	1	2	1			
KOREAN	125	.8		2	23	34	28	14	9	4	2	4	2	2		1	
SAMOAN	183	1.1		9	70	57	18	12	7	3	2	5					
NEGRO	619	3.8		23	248	139	94	52	34	12	7	5	2	3			
PORTUGESE	138	.9		7	34	41	18	17	9	4	2	2	2	1		1	
VIETNAMESE	23	.1		1	8	6	6	1				1					
OTHER	237	1.5		4	81	64	37	26	17	3	1	3	1				
UNKNOWN	2								2								

TABLE 61A
RESIDENT MARRIAGES BY RACE AND AGE OF GROOM
STATE OF HAWAII, 1986

	TOTAL	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & >
TOTAL	9570	15	312	2773	2524	1637	1012	542	258	149	137	76	59	39	37
CAUCASIAN	3943	5	90	1160	901	675	484	250	124	71	68	37	39	22	17
HAWAIIAN	98	0	8	31	19	11	5	14	2	5	2	1	0	0	0
PART HAWN	1438	7	85	493	395	205	111	56	41	23	8	7	4	3	0
CHINESE	361	0	4	42	120	89	51	22	8	4	9	6	4	2	0
FILIPINO	1165	1	63	391	314	165	78	48	30	23	14	11	4	7	16
JAPANESE	1369	2	14	197	461	335	185	90	34	14	17	9	4	5	2
PUERTO RCN	90	0	4	31	27	12	5	5	1	2	1	1	1	0	0
KOREAN	122	0	2	22	33	28	14	9	4	2	4	2	1	0	1
SAMOAN	180	0	9	69	55	18	12	7	3	2	5	0	0	0	0
PORTUGUESE	137	0	7	34	40	18	17	9	4	2	2	2	1	0	1
NEGRO	440	0	21	218	98	50	28	17	4	0	3	0	1	0	0
VIETNAMESE	23	0	1	8	6	6	1	0	0	0	1	0	0	0	0
OTHERS	204	0	4	77	55	25	21	15	3	1	3	0	0	0	0

TABLE 62
MARRIAGES BY RACE AND AGE OF BRIDE
STATE OF HAWAII, 1986

RACE OF BRIDE	TOT	PERCENT	AGE OF BRIDE														
			15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & >	UNK
ALL RACES	16,219	100.0	162	939	4233	4422	2810	1643	869	494	251	156	122	71	31	16	
CAUCASIAN	9,348	57.6	57	352	2091	2459	1756	1131	647	357	179	116	100	60	28	15	
HAWAIIAN	75	.5	1	5	26	10	11	5	6	7	2	1	1				
PART HAWN	1,563	9.6	4o	209	581	368	177	86	40	29	10	10	5	1		1	
CHINESE	526	3.2	2	14	117	195	107	52	20	10	6	2	1				
FILIPIND	1,573	9.7	34	168	593	394	170	100	47	28	20	10	4	3	2		
JAPANESE	1,772	10.9	9	71	387	661	388	145	46	28	17	9	6	5			
PUERTO RCN	76	.5		9	25	21	9	1	2	5	1	2	1				
KOREAN	326	2.0		13	66	87	71	41	22	13	6	4	2	1			
SAMOAN	166	1.0	6	28	62	35	13	11	5	5	---	1					
NEGRO	385	2.4	1	38	147	99	50	28	13	4	3	1		1			
PORTUGESE	108	.7	2	7	37	27	13	7	5	4	3		2		1		
VIETNAMESE	53	.3		3	14	9	8	13	5	1							
OTHER	247	1.5	4	22	86	57	37	23	11	3	4						
UNKNOWN	1				1												

TABLE 62A

RESIDENT MARRIAGES BY RACE AND AGE OF BRIDE
STATE OF HAWAII, 1986

	TOTAL	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & >
TOTAL	9570	158	833	3004	2536	1456	781	364	195	91	63	51	20	9	9
CAUCASIAN	3325	54	252	1017	801	522	329	170	74	25	28	29	10	6	8
HAWAIIAN	72	1	5	25	8	11	5	6	7	2	1	1	0	0	0
PART HAWN	1522	46	209	570	355	171	79	38	27	10	10	5	1	0	1
CHINESE	436	2	14	98	162	88	40	17	7	5	2	1	0	0	0
FILIPINO	1490	34	167	564	368	159	92	42	26	19	10	4	3	2	0
JAPANESE	1597	9	71	347	582	352	136	42	23	16	8	6	5	0	0
PUERTO RCN	68	0	8	22	18	8	1	2	5	1	2	1	0	0	0
KOREAN	290	0	13	58	78	65	37	21	9	5	1	2	1	0	0
SAMOAN	165	6	28	61	35	13	11	5	5	0	1	0	0	0	0
PORTUGUESE	103	2	7	35	26	12	7	4	4	3	0	2	0	1	0
NEGRO	248	1	35	119	55	19	11	3	4	1	0	0	0	0	0
VIETNAMESE	51	0	3	14	8	7	13	5	1	0	0	0	0	0	0
OTHERS	203	3	21	74	40	29	20	9	3	4	0	0	0	0	0

TABLE 63

MARRIAGES BY RESIDENCE OF GROOM AND OF BRIDE
STATE OF HAWAII, 1986

RESID OF GROOM	TOTAL RECORDED	PER CENT	RESIDENCE OF BRIDE																	
			TOTAL	COUNTY OF HAWAII			COUNTY OF HONOLULU			KALAWAO	COUNTY OF KAUAI			COUNTY OF MAUI				NONRES	UNK
				TOTAL	HILO	BAL	TOTAL	HONO	BAL		TOTAL	KAUAI	NIIHAU	TOTAL	LANAI	MAUI	MOLOKAI		
TOTAL	16,219	100.0	9,226	827	269	558	7,261	3,501	3,760		340	339	1	798	8	745	45	6,992	1
STATE OF HAWAII	9,205	56.8	8,862	804	262	542	6,941	3,350	3,591		331	330	1	786	7	735	44	343	
COUNTY OF HAWAII	828	5.1	816	784	251	533	26	14	12					6		6		12	
CITY OF HILO	270	1.7	266	253	225	28	11	8	3					2		2		4	
BAL. OF COUNTY	558	3.4	550	531	26	505	15	6	9					4		4		8	
COUNTY OF HONOLUL	7,243	44.7	6,926	18	11	7	6,882	3,319	3,563		7	7		19		16	3	317	
CITY OF HONO.	3,245	20.0	3,166	6	6		3,151	2,849	302		2	2		7		5	2	79	
BAL. OF COUNTY	3,998	24.7	3,760	12	5	7	3,731	470	3,261		5	5		12		11	1	238	
COUNTY OF KALAWAO																			
COUNTY OF KAUAI	343	2.1	335				11	5	6		323	322	1	1		1		8	
ISL OF KAUAI	341	2.1	333				11	5	6		321	321		1		1		8	
ISL OF NIIHAU	2		2								2	1	1						
COUNTY OF MAUI	791	4.9	785	2		2	22	12	10		1	1		760	7	712	41	6	
ISL OF LANAI	9	.1	9				2	1	1					7	7				
ISL OF MAUI	737	4.5	732	2		2	16	7	9		1	1		713		712	1	5	
ISL OF MOLOKAI	45	.3	44				4	4						40			40	1	
NONRESIDENTS	7,012	43.2	363	22	7	15	320	151	169		9	9		12	1	10	1	6,648	1
UNKNOWN	2		1	1		1												1	

TABLE 64

MARRIAGES BY RACE OF GROOM AND RACE OF BRIDE
STATE OF HAWAII, 1986

RACE OF GROOM	TOTAL	PERCENT	RACE OF BRIDE														OUT MARRIAGES	
			CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGESE	VIETNESE	OTHER RACES	UNKN	TOTAL	RATE/1000
ALL RACES	16,219	100.0	9348	75	1563	526	1573	1772	76	326	166	385	108	53	247	1	4981	307
PERCENT			57.6	.5	9.6	3.2	9.7	10.9	.5	2.0	1.0	2.4	.7	.3	1.5		30.7	1.9
CAUCASIAN	10,094	62.2	8254	24	336	169	472	451	21	127	22	63	21	30	103	1	1840	182
HAWAIIAN	100	.6	26	25	31	1	8	6					1		2		75	750
PART HAWN	1,471	9.1	307	11	675	44	169	175	10	18	11	4	25	2	20		796	541
CHINESE	432	2.7	76		25	165	22	118	1	18	3		1	1	2		267	618
FILIPINO	1,203	7.4	184	4	152	21	692	97	7	10	5		19	3	9		511	424
JAPANESE	1,492	9.2	198	3	152	97	98	837		78	3		13	1	12		655	439
PUERTO RCN	100	.6	19		24	3	18	8	15	2	2	2	3		4		85	850
KOREAN	125	.8	12	2	8	7	4	24		66			1	1			59	472
SAMOAN	183	1.1	26		38	2	9	3	3	1	95		1		5		88	480
NEGRO	619	3.8	148	1	44	5	41	21	12	3	20	309	1		14		310	500
PORTUGESE	138	.9	29	2	36	7	16	14	6	1	1	2	19		5		119	862
VIETNAMESE	23	.1	2		1		2	2				1		15			8	347
OTHER	237	1.5	66	3	41	5	21	16	1	2	4	4	3		71		166	700
UNKNOWN	2		1				1										2	1000
OUT MARRIAGES	4,981	30.7	1094	50	888	361	881	935	61	260	71	76	89	38	176	1		
RATE/1000	307		117	666	568	686	560	527	802	797	427	197	824	716	712	1000		

TABLE 64A

RESIDENT MARRIAGES BY RACE OF GROOM AND RACE OF BRIDE
STATE OF HAWAII, 1986

RACE OF GROOM	TOTAL	RACE OF BRIDE												
		CAUCASIAN	HAWAIIAN	PART HAWN	CHINESE	FILIPINO	JAPANESE	P-RICAN	KOREAN	SAMOAN	PORTUGUESE	NEGRO	VIETNAM	OTHERS
TOTAL	9570	3325	72	1522	436	1490	1597	68	290	165	103	248	51	203
CAUCASIAN	3943	2417	22	309	120	424	356	18	98	21	16	43	28	71
HAWAIIAN	98	25	24	31	1	8	6	0	0	0	1	0	0	2
PART HAWN	1438	286	11	670	44	168	171	10	16	11	25	4	2	20
CHINESE	361	51	0	24	136	18	107	1	17	3	1	0	1	2
FILIPINO	1165	164	4	151	20	677	96	7	10	5	19	0	3	9
JAPANESE	1369	153	3	149	93	93	776	0	75	3	13	0	1	10
PUERTO RCN	90	15	0	23	2	17	8	13	2	2	3	1	0	4
KOREAN	122	10	2	8	7	3	24	0	66	0	1	0	1	0
SAMOAN	180	23	0	38	2	9	3	3	1	95	1	0	0	5
PORTUGUESE	137	28	2	36	7	16	14	6	1	1	19	2	0	5
NEGRO	440	100	1	42	3	36	19	9	3	20	1	195	0	11
VIETNAMESE	23	2	0	1	0	2	2	0	0	0	0	1	15	0
OTHERS	204	51	3	40	1	19	15	1	1	4	3	2	0	64

TABLE 65

DIVORCES AND ANNULMENTS BY PLACE AND MONTH OF OCCURRENCE
STATE OF HAWAII, 1986

COUNTY OF OCCURRENCE		YEAR		MONTH OF OCCURRENCE											
		NUMBER	RATE*	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
STATE OF HAWAII	NUMBER	4,674	4.4	391	330	378	576	508	292	367	351	408	326	287	460
	PERCENT	100.0		8.4	7.1	8.1	12.3	10.9	6.2	7.9	7.5	8.7	7.0	6.1	9.8
HAWAII		521	4.7	47	39	32	52	32	48	35	57	58	21	41	59
HONOLULU		3,563	4.4	300	241	292	471	424	180	284	261	299	247	226	338
KAUAI		187	4.0	12	12	21	13	17	22	12	13	19	20	12	14
MAUI		403	4.6	32	38	33	40	35	42	36	20	32	38	8	49
UNKNOWN															

*RATE PER 1,000 RESIDENT POPULATION

TABLE 66

DIVORCES AND ANNULMENTS BY NUMBER OF CHILDREN REPORTED UNDER 18 YEARS
STATE OF HAWAII, 1986

TYPE OF DECREE		TOTAL		NUMBER OF CHILDREN REPORTED UNDER 18 YEARS OF AGE											
		NUMBER	PERCENT	NONE	1	2	3	4	5	6	7	8	9	> 9	UNKNOWN
TOTAL	NUMBER	4,674	100.0	2181	1157	904	309	76	26	3	3	1			14
	PERCENT	100.0		46.7	24.8	19.3	6.6	1.6	.6	.1	.1				.3
DIVORCES		4,652	99.5	2165	1153	904	308	75	26	3	3	1			14
ANNULMENTS		19	.4	13	4		1	1							
UNKNOWN		3	.1	3											

TABLE 67

DIVORCES AND ANNULMENTS BY RACE AND AGE OF HUSBAND
STATE OF HAWAII, 1986

RACE OF HUSBAND		ALL AGES		AGE OF HUSBAND														
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL RACES	NUMBER	4,674	100.0	1	12	523	944	967	803	572	323	172	119	89	54	20	27	48
	PERCENT	100.0			.3	11.2	20.2	20.7	17.2	12.2	6.9	3.7	2.5	1.9	1.2	.4	.6	1.0
CAUCASIAN		2,292	49.0	1	2	312	468	424	397	282	148	80	58	40	34	8	12	26
HAWAIIAN		86	1.8			6	16	16	13	13	13	5	1	3				
PART HAWAIIAN		473	10.1		1	53	112	110	77	62	30	11	9	4	1			3
CHINESE		145	3.1			4	18	32	31	22	8	11	10	4	3			2
FILIPINO		518	11.1		3	50	102	118	93	47	39	11	11	13	7	8	12	4
JAPANESE		548	11.7		1	17	88	125	113	89	45	28	18	12	8	2	1	1
PUERTO RICAN		52	1.1			7	8	8	6	8	3	3	1	4			1	3
KOREAN		111	2.4		1	8	14	22	17	14	15	7	5	4	1	2		1
SAMOAN		44	.9			8	9	10	2	9	3		1	1				1
NEGRO		228	4.9		2	39	80	53	32	9	4	3	2					4
PORTUGUESE		80	1.7		2	7	9	19	8	7	13	7	2	4			1	1
VIETNAMESE		9	.2			1	3	2	2	1								
OTHER RACES		86	1.8			11	17	27	11	9	2	6	1					2
UNKNOWN		2						1	1									

TABLE 68

DIVORCES AND ANNULMENTS BY RACE AND AGE OF WIFE
STATE OF HAWAII, 1986

RACE OF WIFE		ALL AGES		AGE OF WIFE															
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL RACES	NUMBER	4,674	100.0	7	44	765	1078	1019	744	446	234	126	76	52	27	5	5	46
	PERCENT	100.0		.1	.9	16.4	23.1	21.8	15.9	9.5	5.0	2.7	1.6	1.1	.6	.1	.1	1.0
CAUCASIAN		2,147	45.9	3	23	417	475	455	332	184	99	50	36	30	15	2	5	21
HAWAIIAN		67	1.4		1	8	17	12	11	7	6	2		2				1
PART HAWAIIAN		459	9.8	1		74	113	109	68	49	19	12	5	5		1		3
CHINESE		149	3.2			12	33	32	36	20	6	6	4					
FILIPINO		583	12.5	1	9	91	139	122	94	52	30	13	8	6	6			12
JAPANESE		626	13.4			52	137	137	121	81	42	27	14	6	6	2		1
PUERTO RICAN		46	1.0			13	10	8	5	5	1	3	1					
KOREAN		220	4.7	1	1	17	61	57	27	20	18	9	4	3				2
SAMOAN		36	.8			9	6	11	2	4		1	2					1
NEGRO		163	3.5	1	6	43	52	38	13	6		1	2					1
PORTUGUESE		56	1.2		2	10	14	6	10	6	6	1						1
VIETNAMESE		43	.9		1	5	7	12	11	6	1							
OTHER RACES		78	1.7		1	14	13	20	14	6	6	1						3
UNKNOWN		1					1											

TABLE 69

DIVORCES AND ANNULMENTS BY RACE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1986

RACE OF HUSBAND		ALL RACES		RACE OF WIFE													
		NUMBER	PERCENT	CAUCASIAN	HAWN	PART HAWN	CHINESE	FILIPINO	JAPANESE	PUERTO RICAN	KOREAN	SAMOAN	NEGRO	PORTUGUESE	VIETNAMESE	OTHER RACES	UNKNOWN
ALL RACES	NUMBER	4,674	100.0	2147	67	459	149	583	626	46	220	36	163	56	43	78	1
	PERCENT	100.0		45.9	1.4	9.8	3.2	12.5	13.4	1.0	4.7	.8	3.5	1.2	.9	1.7	
CAUCASIAN		2,292	49.0	1689	19	111	45	123	131	7	85	6	14	4	25	33	
HAWAIIAN		86	1.8	31	18	15	1	9	5		3	1		3			
PART HAWAIIAN		473	10.1	117	5	192	13	57	51	6	6	1		12	2	11	
CHINESE		145	3.1	27	2	7	49	8	40		6		1	2	2	1	
FILIPINO		518	11.1	87	8	44	2	308	42	4	8	1	4	4	2	4	
JAPANESE		548	11.7	87	3	36	29	30	325	2	24		3	4	2	3	
PUERTO RICAN		52	1.1	8	4	10		6	3	13	1		2	1	1	3	
KOREAN		111	2.4	10		1	3	2	11		83						1
SAMOAN		44	.9	10		6	1	5				22					
NEGRO		228	4.9	44	3	15	2	7	2	5	4	4	139		2	1	
PORTUGUESE		80	1.7	6	1	16		21	7	4				24		1	
VIETNAMESE		9	.2	1			2								6		
OTHER RACES		86	1.8	29	4	6	2	7	8	5		1		2	1	21	
UNKNOWN		2		1					1								

TABLE 70

DIVORCES AND ANNULMENTS BY LEGAL GROUNDS AND DURATION OF MARRIAGE
STATE OF HAWAII, 1986

LEGAL GROUNDS		TOTAL		DURATION OF MARRIAGE IN YEARS														
		NUMBER	PERCENT	UNDER 1	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & OVER	UNKNOWN
DIVORCES & ANNULMENTS	NUMBER	4,674	100.0	172	415	502	464	398	1375	678	389	215	64				2
	PERCENT	100.0		3.7	8.9	10.7	9.9	8.5	29.4	14.5	8.3	4.6	1.4				
ABSOLUTE DIVORCES *		4,655	99.6	169	407	502	461	398	1373	678	388	213	64				2
MARR.IRRETR.BROKEN		4,615	98.7	167	407	501	459	395	1357	673	382	208	64				2
SEPARATION		37	.8	1		1	2	3	16	4	6	4					
GRIEV.MENTAL SUFF.		2								1		1					
OTHER																	
UNKNOWN		1		1													
ANNULMENTS		19	.4	3	8		3		2		1	2					
MINOR		1			1												
UNDIV.SPOUSE ALIVE		17	.4	3	6		3		2		1	2					
DID NOT COHABIT																	
FAILURE TO PROVIDE																	
PHYS. INCOMPATIBLE																	
FRAUD		1			1												
OTHER																	
UNKNOWN																	

* INCLUDES TYPE OF DEGREE UNSPECIFIED.

TABLE 71

DIVORCES AND ANNULMENTS BY EDUCATION OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1986

EDUCATION OF HUSBAND YEARS OF SCHOOL		TOTAL		EDUCATION OF WIFE - YEARS IN SCHOOL												
				GRADE SCHOOL								COLLEGE			UNKNOWN
		NUMBER	PERCENT	NONE	1-4	5-6	7-8	9	10	11	12	1-3	4	5+	
TOTAL	NUMBER	4,674	100.0	8	17	57	50	84	139	187	2174	1142	494	234	88
	PERCENT	100.0		.2	.4	1.2	1.1	1.8	3.0	4.0	46.5	24.4	10.6	5.0	1.9
NONE		4	.1	1							1	1			1
GRADE SCHOOL: 1 - 4		26	.6	1	2	3	1	1			4	4	2	2	6
5 - 6		39	.8		3	6	1	3	1	2	16	2	2		3
7 - 8		54	1.2	1	1	2	4	1	1	6	21	13	3		1
9		76	1.6		1	2	2	4	9	7	37	7	2	1	4
10		122	2.6		2	2	3	5	13	10	59	18	5	1	4
11		161	3.4			1	2	7	12	17	86	29	6	1	
12		2,147	45.9	1	1	23	22	44	74	100	1314	391	106	34	37
COLLEGE: 1 - 3		1,049	22.4	2	1	4	6	6	14	29	391	403	120	50	23
4		538	11.5	1	3	5	2	4	8	3	137	166	157	44	8
5+		323	6.9			1	2	1	2	4	45	84	86	98	
UNKNOWN		135	2.9	1	3	8	5	8	5	9	63	24	5	3	1

TABLE 72
DIVORCES AND ANNULMENTS BY RESIDENCE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1986

RESIDENCE OF HUSBAND	TOTAL RECORDED	TOTAL	RESIDENCE OF WIFE												
			COUNTY OF HAWAII			COUNTY OF HONOLULU			COUNTY OF KAUAI	COUNTY OF MAUI				UNKNOWN	NONRESIDENT
			TOTAL	HILO	BAL.	TOTAL	HON.	BAL.		TOTAL	MAUI	LANAI	MOLOKAI		
TOTAL RECORDED	4,674	4,084	471	146	325	3,060	1,440	1,620	160	358	347	1	10	35	590
STATE OF HAWAII	4,063	3,479	424	131	293	2,570	1,221	1,349	139	311	301	1	9	35	584
COUNTY OF HAWAII	459	412	374	110	264	25	12	13	4	6	6			3	47
CITY OF HILO	116	100	92	66	26	6	4	2	1	1	1				16
BALANCE OF COUNTY	343	312	282	44	238	19	8	11	3	5	5			3	31
COUNTY OF HONOLULU	3,032	2,550	33	15	18	2,466	1,167	1,299	9	19	19			23	482
CITY OF HONOLULU	1,383	1,200	18	8	10	1,157	842	315	4	11	11			10	183
BALANCE OF COUNTY	1,649	1,350	15	7	8	1,309	325	984	5	8	8			13	299
COUNTY OF KAUAI	168	151	3	2	1	18	8	10	125	3	3			2	17
COUNTY OF MAUI	353	316	6	1	5	30	16	14	1	272	262	1	9	7	37
ISLAND OF MAUI	330	297	5	1	4	25	14	11	1	259	259			7	33
ISLAND OF LANAI	5	4	1		1	1	1			2	1	1			1
ISLAND OF MOLOKAI	18	15				4	1	3		11	2		9		3
UNKNOWN	51	50	8	3	5	31	18	13		11	11				1
NONRESIDENT	611	605	47	15	32	490	219	271	21	47	46		1		6

TABLE 73
DIVORCES AND ANNULMENTS BY AGE OF HUSBAND AND OF WIFE
STATE OF HAWAII, 1986

AGE OF HUSBAND		ALL AGES		AGE OF WIFE														
		NUMBER	PERCENT	UNDER 18	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75 & OVER	UNKNOWN
ALL AGES	NUMBER	4,674	100.0	7	44	765	1078	1019	744	446	234	126	76	52	27	5	5	46
	PERCENT	100.0		.1	.9	16.4	23.1	21.8	15.9	9.5	5.0	2.7	1.6	1.1	.6	.1	.1	1.0
UNDER 18		1				1												
18 - 19		12	.3	1	2	8	1											
20 - 24		523	11.2	3	31	360	88	24	8	2								7
25 - 29		944	20.2	1	7	282	484	125	27	11	2	1						4
30 - 34		967	20.7		3	73	312	429	107	23	7	4			1			8
35 - 39		803	17.2	1	1	21	112	280	310	50	16	4	1					7
40 - 44		572	12.2	1		7	44	93	192	181	35	10	3	1	1			4
45 - 49		323	6.9			2	8	35	55	111	79	17	8	2				6
50 - 54		172	3.7				10	8	21	31	47	43	7	1	1	1		2
55 - 59		119	2.5				2	7	10	14	23	26	28	6	1			2
60 - 64		89	1.9			1	1	4	7	5	12	15	22	19	2	1	1	3
65 - 69		54	1.2				1	1	2	8	4	7	6	12	11			2
70 - 74		20	.4					1	2	3	3	2		3	5		1	
75 & OVER		27	.6				1	1	1	2	2	1	1	6	5	3	3	1
UNKNOWN		48	1.0			10	14	11	2	5	4			2				

HAWAII TUMOR REGISTRY

The total number of resident cancer cases reported in Hawaii in 1985 (the most recent year of complete registration) was 3,363. This represented an 8.6% increase over the number of cases (3,095) reported in 1984. The 1,747 new male cases represented an increase of 103 (or 6.2%) over the previous year. The 1,616 new female cases represented an increase of 16 (or 11.4%) over the previous year.

The sites of the three most common cancers among resident males in 1985 continue to be prostate, lung, and colon in that order. Among resident females, the sites of the three most common cancers in 1985 were breast, colon, and uterus (cervix and corpus counted together). For the first time, the number of both male and female lung cancer cases decreased when compared with a previous year.

In 1985, cancer of the prostate was the most common cancer among Filipino, Caucasian, and Japanese males, while cancer of the lung was the most common cancer among Chinese and Hawaiian males. (Stomach cancer continue to decrease as a common Japanese male cancer, although Japanese males still accounted for 54% of the male stomach cancer cases.) Breast cancer was the most common malignant disease among female residents in 1985. (For the first time, there were more breast cancer cases among Japanese females than among Caucasian females ... the two groups which account for the greatest number of breast cancer cases.)

The median age-at-diagnosis for resident males in 1985 was 67.5 years, up slightly from the 66.9 years of 1984 cases. The median age-at-diagnosis for resident females in 1985 was 60.5 years, down slightly from the 62.1 years of the 1984 cases.

Of the 1,747 male resident cases registered in 1985, 1,048 (or 60.0%) were alive at last report. Of the 1,616 female resident cases registered in 1985, 1,235 (or 76.4%) were alive at last report.

TABLE 1

MOST COMMON CANCERS REPORTED BY SITE AND RACE
MALE RESIDENTS
STATE OF HAWAII, 1985

SITE	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Other
Total All Sites	1,747	577	92	221	170	553	134
Bladder	57	28	2	3	2	15	7
Colon	202	51	12	27	16	86	10
Leukemia	59	11	7	15	8	13	5
Lung	284	93	17	23	45	84	22
Skin	101	66	2	1	-	6	26
Prostate	305	102	16	57	24	96	10
Rectum	119	20	6	25	9	58	1
Stomach	108	17	1	7	16	58	9
Other	512	189	29	63	50	137	44

TABLE 2

MOST COMMON CANCERS REPORTED BY SITE AND RACE
FEMALE RESIDENTS
STATE OF HAWAII, 1985

SITE	Total All Races	RACE					
		Caucasian	Chinese	Filipina	Hawaiian	Japanese	Other
Total All Sites	1,616	529	96	128	194	490	179
Breast	503	156	33	37	67	161	49
Cervix	112	45	5	8	13	16	25
Uterus	103	29	10	4	12	40	8
Colon	149	50	7	7	14	64	7
Lung	117	46	8	4	23	28	8
Ovary	49	22	3	7	8	8	1
Rectum	59	15	3	6	5	27	3
Stomach	55	8	4	8	7	26	2
Thyroid	68	17	1	18	6	10	16
Other	401	141	22	29	39	110	60

TABLE 3

HAWAII TUMOR REGISTRATIONS
AGE AND RACE
MALE
STATE OF HAWAII, 1985

AGE	Total All Races	RACE					
		Caucasian	Chinese	Filipino	Hawaiian	Japanese	Other
Total All Ages	1,747	577	92	221	170	553	134
0 - 1 Year	1	1	-	-	-	-	-
1 - 4 Years	10	5	-	-	1	1	3
5 - 14 Years	9	1	1	2	-	2	3
15 - 24 Years	17	7	-	1	2	4	3
25 - 34 Years	46	26	-	-	5	5	10
35 - 44 Years	87	42	1	9	12	15	8
45 - 54 Years	164	56	5	13	24	46	20
55 - 64 Years	404	122	19	42	42	147	32
65 - 74 Years	534	184	34	52	64	167	33
75 + Years	472	132	32	102	20	166	20
Unknown	3	1	-	-	-	-	2

TABLE 4

HAWAII TUMOR REGISTRATIONS
AGE AND RACE
FEMALE
STATE OF HAWAII, 1985

AGE	Total All Races	RACE					
		Caucasian	Chinese	Filipina	Hawaiian	Japanese	Other
Total All Ages	1,616	529	96	128	194	490	179
0 - 1 Year	1	-	-	-	-	1	-
1 - 4 Years	8	1	-	2	3	1	1
5 - 14 Years	6	-	-	1	4	-	1
15 - 24 Years	25	9	-	2	3	2	9
25 - 34 Years	117	44	2	10	8	17	36
35 - 44 Years	194	65	10	31	20	36	32
45 - 54 Years	265	69	11	25	47	70	43
55 - 64 Years	350	96	22	27	42	142	21
65 - 74 Years	359	138	23	12	42	125	19
75 + Years	287	107	27	18	25	96	14
Unknown	4	-	1	-	-	-	3

TABLE 5

HAWAII TUMOR REGISTRATIONS, RECENT YEARS
VITAL STATUS
MALE
STATE OF HAWAII

VITAL STATUS	YEAR OF DIAGNOSIS			
	1982	1983	1984	1985
Alive, no cancer reported	362	391	472	571
Alive, cancer present	89	117	166	321
Alive, cancer status unknown	149	177	207	156
Expired, no cancer present	83	47	54	37
Expired, cancer present	820	839	768	636
Expired, cancer status unknown	42	52	52	26
TOTAL	1,545	1,623	1,719	1,747

TABLE 6

HAWAII TUMOR REGISTRATIONS, RECENT YEARS
VITAL STATUS
FEMALE
STATE OF HAWAII

VITAL STATUS	YEAR OF DIAGNOSIS			
	1982	1983	1984	1985
Alive, no cancer reported	508	554	667	896
Alive, cancer present	75	75	105	166
Alive, cancer status unknown	199	187	232	173
Expired, no cancer present	27	38	31	21
Expired, cancer present	559	510	464	334
Expired, cancer status unknown	29	27	23	26
TOTAL	1,397	1,391	1,522	1,616

HEALTH PROMOTION AND EDUCATION OFFICE

HEALTH PROMOTION AND EDUCATION OFFICE

The Health Promotion and Education Office was awarded a grant by the Centers for Disease Control (CDC) to initiate and maintain a Behavioral Risk Factor Surveillance System (BRFSS) for collecting information on the prevalence of health behaviors among adults in Hawaii. The risk factors surveyed are related to the ten leading causes of death. They include cigarette smoking, hypertension, obesity, seatbelt use, physical inactivity, smokeless tobacco and alcohol use.

The BRFSS is comprised of monthly telephone surveys following a recommended CDC-sampling protocol which uses a version of random-digit dialing based on clusters of telephone numbers. To obtain information specific to each island and to the population as a whole, the sampling frame was stratified by island. Molokai and Lanai were combined. Niihau lacks telephone service and, therefore, was not included in the survey.

The Behavioral Risk Factor Survey includes a number of questions which were selected for comparability from national surveys. Similar methods used each year by participating states also allow for comparisons of risk factor prevalence and the monitoring of trends over time.

The Hawaii sample was drawn from all residents (excluding institutionalized persons and on-base military personnel) over the age of 18 years. One thousand five hundred fifty-seven (1,557) interviews were completed over a ten-month period, from March through December, 1986. Highlights of the 1986 data follow.

Seatbelt Use

The "at risk" population includes respondents who reported they sometimes, seldom, or never use seatbelts.

Risks due to inadequate seatbelt use in Hawaii's population dropped dramatically from 63.9% in 1984 to 9.2% in 1986. Among islands, there were significant differences in seatbelt use. The neighbor islands, except for Molokai and Lanai, used seatbelts less frequently than Oahu. Demographic groups at high risk due to inadequate seatbelt use were Koreans, Hawaiians/Part Hawaiians, and Caucasians; the 18-24 and 35-44 year age groups; persons who were divorced, widowed, or who have never been married, and households with incomes of less than $15,000 per year. There were no significant differences in seatbelt use according to sex or employment status.

Hypertension

In 1986, 21.1% of the adult population reported having ever been told by a doctor, nurse, or other health professional that they have high blood pressure. Of those who indicated they were hypertensive, 51% had been prescribed medication, with 96.3% still taking the prescribed medicine. Other actions taken to control high blood pressure were: low salt diet (63.6%), watching one's weight (77.0%), relaxing or avoiding stress (81.3%), decreasing or stopping smoking (28.2%), and participating in an exercise program (43.4%).

Survey respondents were defined as "Current hypertensives" if they reported that 1) they had been told they had high blood pressure on two or more occasions, 2) they had medication currently prescribed, or 3) they reported having high blood pressure at the time of the survey. In 1986, 15.9% of the adult population had current hypertension. The risks posed by hypertension are directly related to growing older. Groups with highest risks included persons with an eighth grade or less education, and those who completed some high school; retired persons and homemakers; and those widowed and separated. No significant differences in risk were found when the data were classified by island, sex, race or household income.

Sedentary Lifestyle

Respondents who reported levels of physical activity less than three times a week or less than 20 minutes per occasion were considered to have sedentary lifestyles.

The percentage of adults in Hawaii having sedentary lifestyles was 48.3% in 1986.

The top five activities for those who did exercise were walking (34.3%), running/jogging (15.5%), gardening (11%), golfing (5.9%), and swimming laps (5.4%). High-risk groups were those aged 45-54, 35-44 and 55-64; Koreans, Japanese, Filipinos, Chinese, and persons employed for wages, and students. No differences in risk were found by island or between females and males, household income, educational level, or marital status.

Obesity

Persons at risk due to obesity were identified as those "at or above 120% of their ideal weight." Ideal weight was defined as the "mid-value of a medium frame person from the Metropolitan height-weight tables.

The overall rate of obesity in Hawaii was 16.8% in 1986. High rates of obesity were found on Kauai, Molokai and Lanai, Hawaii; and among Samoans/Tongans, and Hawaiians/Part Hawaiians. Obesity was found to increase with age up through age groups 45-54, and to decrease thereafter. No significant differences were found between females and males, by educational level, employment status, marital status or level of income.

About 38% of the adult population saw themselves as obese. Perception of obesity was defined as trying to lose weight. While more women perceived themselves to be obese; in fact, there were no significant differences in obesity between men and women.

Cigarette Smoking

Persons at risk due to cigarrette smoking were identified as current regular smokers ("ever smoked 100 cigarettes and smokes now").

The smoking rate in Hawaii was 24.1% of the population in 1986. Groups found to be at high risk due to smoking are males; Caucasians, Hawaiian/-Part-Hawaiian, Filipinos and Samoans/Tongans; the 44-54 and 25-34 year age groups; unemployed persons; those with educational levels ranging from some high school to high school graduates; and those who were separated, divorced, and members of unmarried couples. No significant differences were found by island or household income.

Of those who smoked, 78.6% smoked less than one pack a day, 16.3% smoked one to two packs a day, and 4.7% smoked more than two packs a day. About 54% of the respondents who were cigarette smokers said they had stopped smoking for at least a week during the past year. Findings also indicate that as people age, fewer try to stop smoking.

Alcohol Use

Acute drinking was defined as "having five or more drinks on a given occasion, one or more times in the past month."

The acute or binge drinking rate in 1986 was 20.1%. Males were found to be at much greater risk than females. Binge drinking is more frequent among the young, and decreases with age. Groups with the highest risks were Blacks, Hawaiians/Part Hawaiians, and Caucasians; those who were unemployed for less than a year, and employed for wages, and students; members of unmarried couples and those never married; and members of households with annual incomes of $50,000+; $15,000 to less than $20,000; and $30,000 to less than $35,000. No significant differences in rates of binge drinking were found by island.

Chronic or heavier drinking was defined as having "an average of two or more drinks per day or 14 or more per week."

The chronic drinking rate in 1986 was 9.6%. Groups with higher chronic drinking rates were males; Casucasians, Blacks, Japanese and Koreans; the 35-44, 25-34 and 55-64 age groups; persons who were out of work for more than one year, and those out of work for less than one year; and persons with household incomes from $40,000 to over $50,000. No significant differences were found among respondents by island, educational level and marital status.

Drinking and driving was defined as "having driven after having too much to drink, one or more times in the past month."

The rate of drinking and driving was 3.3% in 1986. Males had a higher drinking and driving rate than females. Groups with high rates were the 18-24, 25-34, and 45-54 age groups; persons having educational levels ranging from some high school to college graduates; those unemployed for less than one year; divorced and never-married persons. No significant differences were found among respondents by island, race, or household income.

Table 1

NUMBER AND PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY FROM VARIOUS BEHAVIORAL RISK FACTORS FOR 1986

Risk Factors	Number (Estimated)	Percent (Estimated)
Inadequate Seatbelt Use	62,013	9.2
Uncontrolled Hypertension[1]	9,044	1.3
Current Hypertension[2]	107,064	15.9
Sedentary lifestyle	324,734	48.3
Obesity	112,701	16.8
Cigarette Smoking	162,000	24.1
Smokeless tobacco[3]	7,855	1.2
Acute Drinking	134,756	20.1
Chronic Drinking	64,263	9.6
Drinking & Driving	22,456	3.3

[1]Respondents who report they have ever been told they are hypertensive and their blood pressure is still high.

[2]Respondents who report they have been told their blood pressure is high more than once, or are on medication, or report their blood pressure is still high.

[3]Respondents who report current smokeless tobacco use (ever used or tried it and use it now).

Table 2

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY FROM VARIOUS BEHAVIORAL RISK FACTORS BY ISLAND - STATE OF HAWAII, 1986

Island	Inadequate Seatbelt Use	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Chronic Drinking	Drinking & Driving
Hawaii	11.4	21.2	40.7	18.3	32.2	20.8	10.4	2.6
Kauai	26.0	16.0	49.5	28.4	23.0	19.5	10.4	7.2
Maui	14.7	14.7	43.5	15.8	20.7	18.6	11.3	4.0
Molokai & Lanai	8.0	15.5	40.8	21.5	19.7	18.0	10.2	4.3
Oahu	7.5	15.4	49.7	16.0	23.6	20.2	9.2	3.1
Neighbor Islands	15.3	17.8	43.4	19.6	26.0	19.7	10.7	4.1
State	9.2	15.9	48.3	16.8	24.1	20.1	9.6	3.3

Table 3

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY
FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1986

Demographic Characteristic	Inadequate Seatbelt Use	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Chronic Drinking	Drinking & Driving
Sex								
Female	8.2	14.4	52.6	15.7	20.8	6.6	3.0	1.2
Male	10.3	17.5	43.9	17.8	27.5	33.8	16.2	5.5
Age								
18 - 24	16.5	3.5	41.9	13.5	18.2	36.9	5.9	9.1
25 - 34	5.8	6.1	47.7	14.0	27.9	23.6	11.9	3.7
35 - 44	11.8	10.6	52.6	18.7	24.9	16.0	12.0	1.5
45 - 54	6.6	21.3	56.4	22.7	33.2	14.6	9.0	3.0
55 - 64	7.1	34.6	48.0	20.5	21.3	13.6	11.6	0.4
65+	7.8	38.3	44.1	13.7	15.0	5.8	4.7	0.0
Race								
Black	0.0	7.4	40.2	0.0	18.5	35.3	12.3	2.9
Caucasian	11.4	12.6	41.2	16.8	27.6	24.8	13.8	1.8
Chinese	1.6	10.6	55.6	8.0	11.7	10.6	2.2	3.7
Filipino	7.2	14.5	59.4	8.3	25.1	14.8	4.0	3.8
Hawaiian/Part Hawaiian	14.0	14.4	37.6	36.9	28.4	27.8	9.9	3.5
Japanese	7.4	21.6	54.7	13.0	20.3	14.9	10.5	3.4
Korean	15.6	26.0	64.0	10.1	10.0	10.0	10.0	10.0
Samoan/Tongan	0.0	31.8	36.8	52.8	25.0	22.3	0.0	0.0
Others	12.4	16.6	31.6	23.6	38.9	25.7	2.1	12.1

Table 3 (Cont'd.)

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY
FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1986

Demographic Characteristic	Inadequate Seatbelt Use	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Chronic Drinking	Drinking & Driving
Education								
8th Grade or less	7.2	25.0	60.7	14.3	20.6	4.7	3.1	0.5
Some High School	18.9	28.8	46.9	22.0	39.3	24.6	12.1	3.9
High School Grad. or GED Certificate	9.4	14.8	46.4	17.7	29.3	26.1	10.4	5.6
Some Technical Sch.	1.6	11.8	38.6	2.3	12.2	3.3	2.7	0.0
Technical Sch. Grad.	7.8	17.7	55.1	20.9	23.5	10.1	14.6	0.4
Some College	9.6	10.8	51.0	16.0	21.8	23.6	7.7	1.0
College Graduate	6.0	13.7	41.0	13.3	12.9	15.2	11.5	5.2
Post Grad. or Professional degree	5.4	13.5	48.2	17.2	15.4	10.7	10.2	1.0
Employment Status								
Employed for Wages	8.8	12.7	51.7	16.8	26.1	25.2	11.0	4.2
Self Employed	7.7	12.0	42.3	15.7	19.3	12.5	11.2	1.2
Out of Work for More than 1 year	14.1	11.8	32.7	17.5	59.4	18.6	16.0	5.0
Out of Work for Less Than 1 year	25.5	3.9	43.6	29.5	39.4	26.5	14.4	14.1
Homemaker	8.5	22.6	42.7	17.9	21.5	3.9	1.9	0.0
Student	5.4	7.7	55.4	13.8	9.5	24.9	1.3	2.9
Retired	9.7	37.6	41.0	14.2	16.8	9.2	8.1	0.4

Table 3 (Cont'd.)

PERCENT OF ADULT HAWAII POPULATION AT RISK FOR MORBIDITY AND MORTALITY
FROM VARIOUS BEHAVIORAL RISK FACTORS BY SELECTED DEMOGRAPHIC CHARACTERISTICS - STATE OF HAWAII, 1986

Demographic Characteristic	Inadequate Seatbelt Use	Current Hypertension	Sedentary Lifestyle	Obesity	Smoking	Acute Drinking	Chronic Drinking	Drinking & Driving
Marital Status								
Married	5.4	17.7	49.1	15.9	22.8	15.8	9.9	1.6
Divorced	15.9	16.2	53.8	16.1	36.0	19.6	13.1	5.0
Widowed	13.5	39.1	56.4	16.4	15.6	4.5	5.0	0.0
Separated	5.4	20.9	54.0	37.4	50.1	18.7	6.6	0.0
Never Married	18.0	7.2	43.2	18.2	21.8	34.3	8.2	8.9
Member of an Unmarried couple	4.1	2.7	38.3	13.8	43.7	38.4	11.5	0.2
Refused	0.0	7.7	43.7	43.7	11.3	0.0	0.0	0.0
Household Income								
Less Than $10,000	13.7	17.7	46.3	20.3	30.0	11.4	3.7	2.4
10 to less than 15	10.8	14.0	56.5	20.3	23.2	17.1	8.2	2.4
15 to less than 20	9.6	18.5	49.6	17.5	22.0	23.7	7.3	1.6
20 to less than 25	8.3	17.8	44.3	21.4	21.2	21.2	9.0	4.2
25 to less than 30	9.1	16.7	47.9	15.0	34.6	20.6	10.2	5.7
30 to less than 35	5.4	13.8	48.3	12.9	15.6	23.5	8.7	4.6
35 to less than 40	5.1	16.8	48.7	12.4	32.4	21.7	10.3	0.1
40 to less than 45	9.1	12.2	48.6	15.3	13.9	21.1	21.0	1.8
45 to less than 50	5.3	6.5	41.7	18.1	21.6	19.7	14.2	0.0
Over $50,000	4.6	16.3	40.1	14.2	19.1	25.6	17.6	7.3
Don't Know/Not Sure	17.9	10.7	45.5	11.7	25.2	21.6	6,4	5.2
Refused	6.2	24.0	70.0	17.8	23.2	3.9	9.5	0.0

HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

HAWAII STATE HEALTH PLANNING AND DEVELOPMENT AGENCY

Annual Summary of Acute, Long Term Care and Specialty Hospital Utilization by County, 1981 - 1986

Hawaii's State Health Planning and Development Agency (SHPDA) is an agency of state government, administratively attached to the State Department of Health. The Agency (SHPDA) staffs the Hawaii Statewide Health Coordinating Council (HSHCC) and the seven Subarea Health Planning Councils (SACs) throughout the State. Authorized by the National Health Planning and Resources Development Act, the Agency was established in July, 1976 with amendments to Chapter 323D, Hawaii Revised Statutes.

The Agency produces and promotes the implementation of the Health Services and Facilities Plan. The goals of the Agency are to:

1. Improve the health of the residents of the State.
2. Increase the accessibility, acceptability, availability, continuity and quality of health services provided them.
3. Contain increases in the cost of providing health services.
4. Prevent the unnecessary duplication of health resources.

The Agency collects information on the utilization of inpatient facilities in the State and prepares an annual summary. The data in this report were obtained by SHPDA directly from each of the inpatient facilities in the State. In 1979, SHPDA initiated a Quarterly Utilization Report which included daily census data from each facility for each type of bed. The 1981-86 facility data are complete, as reported to the Agency.

Admissions

The number of admissions is defined as the number of inpatient admissions. A given person could be admitted more than once during a year. The critical care admissions are included in the categories shown. Data on the use rate of critical care beds are available at SHPDA.

The number of admissions multiplied by the average length of stay produces the total number of patient days.

Average Daily Census (ADC)

The average daily census provides the mean number of beds occupied during the year. The average daily census multiplied by 365 gives the total number of patient days per year. The average daily census divided by the bed capacity and multiplied by 100 gives the occupancy rate.

Occupancy Rates

Occupancy rates can be computed by dividing the ADC by the number of licensed beds and multiplying by 100. This provides an idea of the proportion of bed capacity occupied on the average day. As with ADC, this will fluctuate from day to day and by type of bed and place.

If a hospital's occupany rate is too high, it may not have adequate capacity to accept new patients. Also, some extra beds are always needed in order to allow for maintenance, etc. Usually, high occupancy in long term care beds is more acceptable, i.e., above 95%, since there is less daily fluctuation in daily census. In acute care, particularly where patients are admitted on a non-scheduled basis, e.g., OB, CCU, etc., the optimal occupancy can be lower in order to permit unforeseen admissions. For other types of acute beds, an occupancy of about 80-85% is acceptable because admissions can be scheduled if bed capacity is fully utilized on a given day.

In some instances, occupancy may run over 100% because of an overflow situation. This might occur if there are, for example, too many of a given type of patient who must be temporarily assigned to another bed type. Where occupancy rates are very high, this is an indication of an inadequate supply of that type of bed on a given island; where they are low, it is an indication of either an adequate supply or surplus of that type of bed on that island.

Average Length of Stay (ALOS)

The average length of stay is the average number of days patients remain in the facility per hospital stay. For acute care, this is computed by dividing the total patient days by the number of admissions. For long term care, this is computed dividing the patient days by the number of discharges. This is done because long term care patients may remain in a facility for several years.

Length of stay can be thought of as an indicator of either efficiency or seriousness of patient's illness. Where facilities are able to discharge patients in a shorter time, they might be thought of as being more efficient. However, in some instance where patients remain out of a hospital until their condition is more serious or where outpatient care is encouraged for less serious conditions, patients admitted may be required to stay longer.

In addition, in the event that long term care patients are occupying acute beds because they cannot find long term accommodations, this may tend to increase the acute length of stay--confusing the interpretation. It would be best if, when computing length of stay, waitlisted long term care patients could be omitted from the acute inpatient care data. This has not been done in these data.

TABLE 1
SHPDA RECOGNIZED ACUTE CARE BED CAPACITY
STATE OF HAWAII, 1987

	Medical/ Surgical	Critical Care[a]	Obstetric	Pediatric	Neonatal ICU[c]	Neonatal Psych	Total
METROPOLITAN							
Kaiser	124	20	30	20	2	-	196
Kapiolani	68	22[b]	60	64	18	-	232
Kuakini	225	25	-	-	-	-	250
Queen's	404	27	25	-	-	50	506
St.Francis	230	22	-	4	-	-	256
Straub	136	23	-	-	-	-	159
Subtotal	1187	139	115	88	20	50	1599
SUBURBAN							
Castle	79	8	14	-	-	55	156
Kahuku	6	2	3	-	-	-	11
Wahiawa	50	5	14	-	-	-	69
Subtotal	135	15	31	-	-	55	236
OAHU TOTAL	1322	154	146	88	20	105	1835
MILITARY							
Tripler	387	-	41	17	-	64	509[d]
HAWAII COUNTY							
Hilo	91	11	20	14	-	20	156
Honokaa	19	2	4	2	-	-	27
Ka'u	4	1	2	-	-	-	7
Kohala	4	-	4	-	-	-	8
Kona	31	6	8	-	-	8	53
Subtotal	149	20	38	16	-	28	251
MAUI COUNTY							
Maui Island							
Hana	4	-	-	-	-	-	4
Kula	4	-	-	-	-	-	4
Maui	104	8	18	5	-	10	145
Lanai Island							
Lanai	3	1	1	-	-	1	6
Molokai Island							
Molokai	12	-	4	-	-	-	16
Subtotal	127	9	23	5	-	11	175
KAUAI COUNTY							
Mahelona	-	-	-	-	-	9	9
Kauai Vet.	18	2	7	-	-	-	27
G.N. Wilcox	64	8	9	-	-	-	81
Subtotal	82	10	16	-	-	9	117
N. I. TOTAL	358	39	77	21	-	48	543
STATE TOTAL W/O TRIPLER	1680	193	223	109	20	153	2378
STATE TOTAL W/ TRIPLER	2067	193	264	126	20	217	2887

a. Includes coronary and intensive care units
b. Includes 6 Ped ICU, 6 Ped Intermediate Care and 10 Perinatal intensive care (PICU)
c. neonatal isolettes
d. Tripler uses a total bed capacity of 561, which includes 52 nursery beds

SOURCE: SHPDA, June, 1987 (Survey data available which are closest to December, 1986)

TABLE 2
SHPDA RECOGNIZED LONG TERM CARE BED CAPACITY
STATE OF HAWAII, 1987

	Skilled Nursing	Intermediate	SNF/ICF	Acute/SNF Swing	Total
OAHU					
Ann Pearl	-	86	-	-	86
Arcadia	60	-	-	-	60
Beverly Manor	-	-	108	-	108
Convalescent Center	-	-	183	-	183
Crawford's	-	68	-	-	68
Hale Ho Aloha	-	85	-	-	85
Hale Malamalama	-	31	-	-	31
Hale Nani	-	-	232	-	232
Hawaii Select Care	-	92	-	-	92
Island Nursing	-	-	42	-	42
Kahanaola	-	-	42	-	42
Kahuku	11	-	-	4	15
Kuakini	50	150	-	-	200
Leahi	92	38	-	-	130
Leeward	-	50	-	-	50
Maluhia	-	-	158	-	158
Maunalani	-	-	101	-	101
Nuuanu Hale	75	-	-	-	75
Oahu Care Facility	-	82	-	-	82
St. Francis	52	-	-	-	52
Wahiawa	-	-	93	-	93
Total Oahu	340	682	959	4	1985
HAWAII COUNTY					
Life Care Center	-	240	-	-	240
Hilo Hospital	36	84	-	-	120
Honokaa	8	-	-	-	8
Ka'u	-	-	10	3	13
Kohala	2	16	-	-	18
Kona	-	-	22	-	22
Total Hawaii County	46	340	32	3	421
MAUI COUNTY					
Hale Makua	-	124	120	-	244
Kula	-	-	94	-	94
Lanai	-	-	8	-	8
Molokai	-	-	14	-	14
Total Maui County	-	124	236	-	360
KAUAI COUNTY					
Hale Omao	-	30	-	-	30
Kauai Care Center	-	17	-	-	17
Kauai Veterans	6	-	-	11	17
Mahelona	-	-	61	6	67
G. N. Wilcox	-	-	80	-	80
Total Kauai County	6	47	141	17	211
STATE TOTAL	392	1193	1368	24	2977

SOURCE: SHPDA, June, 1987 (Survey data available which are closest to December, 1986)

Table 3
SHPDA RECOGNIZED SPECIALTY CARE BED CAPACITY
STATE OF HAWAII, 1987

	Psych	TB	MR	ICF/MR	SNF/MR	Leprosy	Rehab	Children's Ortho	M/S	Total
Hale Mohalu	-	-	-	-	-	21	-	-	-	21
Hawaii State	239*	-	-	-	-	-	-	-	-	239
Kahi Mohala	88	-	-	-	-	-	-	-	-	88
Kalaupapa	-	-	-	-	-	24	-	-	-	24
Kula	-	-	8	-	-	-	-	-	-	8
Leahi	-	21	-	-	-	-	-	-	5	26
Rehab. Hospital	-	-	-	-	-	-	100	-	-	100
Shriner's	-	-	-	-	-	-	-	40	-	40
Waimano	-	-	-	350	60	-	-	-	-	410
GRAND TOTAL	327	21	8	350	60	45	100	40	5	956

*Includes 20 ped. psych. beds

SOURCE: SHPDA, June, 1987 (Survey data available which are closest to December, 1986)

TABLE 4
AVERAGE LENGTH OF STAY BY COUNTIES
STATE OF HAWAII 1981 - 1986

	1981	1982	1983	1984	1985	1986
LONG TERM CARE						
Oahu	390.5	387.8	409.2	452	412	419
Hawaii	304.3	336.6	233.2	274	287	296
Kauai	354.6	335.8	262.5	194	195	101
Tri-Isle	347.1	330.8	406.5	264	412	372
Maui	347.6	338.4	426.4	263	427	418
Molokai	263.0	203.3	213.7	195	260	95
Lanai	286.1	323.1	216.2	696	276	*
TOTAL ACUTE						
Oahu w/o Tripler	6.5	6.6	6.3	5.9	6.5	6.8
Hawaii	4.7	4.1	4.2	4.3	4.3	4.5
Kauai	4.7	5.5	4.6	4.4	4.4	3.6
Tri-Isle	4.9	4.9	4.9	4.7	4.7	4.6
Maui	4.8	5.1	3.5	4.9	4.8	3.5
Molokai	2.5	2.7	3.7	2.9	3.1	3.5
Lanai	4.9	2.9	4.2	4.3	2.9	*
MEDICAL-SURGICAL						
Oahu w/o Tripler	7.4	7.6	7.1	6.7	7.2	7.6
Hawaii	4.5	4.6	5.2	5.5	5.3	5.5
Kauai	7.4	7.8	6.0	5.3	5.2	4.0
Tri-Isle	5.6	6.0	5.9	5.7	5.6	5.7
Maui	5.7	6.1	6.0	5.9	5.8	5.8
Molokai	3.1	3.5	4.6	3.2	3.3	4.0
Lanai	2.5	3.0	5.3	4.9	3.1	*
CRITICAL CARE (ICU/CCU)						
Oahu w/o Tripler	-	7.2	7.7	5.0	5.8	5.9
Hawaii	3.2	2.9	2.7	2.6	2.5	2.5
Kauai	2.0	2.1	1.5	1.8	2.0	1.8
Maui	-	3.2	2.6	2.8	3.1	3.3
OBSTETRIC						
Oahu w/o Tripler	3.3	3.2	3.1	3.2	3.2	3.3
Hawaii	2.4	2.3	2.2	2.2	2.4	2.6
Kauai	2.5	2.6	2.0	2.4	2.5	2.4
Tri-Isle	2.1	2.0	2.0	2.0	1.9	1.7
Maui	2.2	2.1	2.1	2.0	1.9	1.7
Molokai	1.6	1.5	1.5	1.4	1.4	1.4
Lanai	-	1.3	1.4	2.1	2.1	*
PEDIATRIC						
Oahu w/o Tripler	3.9	3.9	3.8	3.9	3.9	4.0
Hawaii	2.9	2.8	2.8	2.7	2.7	2.8
Kauai	3.1	2.6	2.2	...	...	...
Tri-Isle	3.0	4.0	3.5	3.5	3.0	2.7
Maui	3.2	3.9	3.7	3.5	3.0	2.7
Molokai	1.3	1.0	1.8	...	...	*
PSYCHIATRIC						
Oahu w/o Tripler	10.0	11.4	10.0	11.9	12.3	13.8
Hawaii	8.1	9.1	7.8	6.3	6.0	7.1
Kauai	7.8	6.4	6.9	6.4	5.6	7.0
Tri-Isle	9.0	6.4	6.3	7.3	6.8	6.8
Maui	9.4	6.7	6.3	7.3	6.8	6.8
Molokai	1.0	1.3	...	...	...	...
MENTALLY RETARDED						
State	1761.5	3372.9	...	2584.7	2437	3904
SPECIALTY						
State	122.5	116.6	...	257.9	125	64

* data not available
SHPDA: June 1987

TABLE 5
OCCUPANCY RATES BY COUNTIES
STATE OF HAWAII 1981-1986

	1981	1982	1983	1984	1985	1986
LONG TERM CARE						
Oahu	94.4	96.0	95.4	97.3	97.2	90.5
Hawaii	95.3	82.9	94.6	95.2	95.3	93.8
Kauai	101.2	99.8	94.5	96.3	91.1	83.0
Tri-Isle	93.2	94.9	96.8	92.6	97.0	97.3
Maui	94.4	95.4	97.5	95.0	97.0	97.6
Molokai	78.3	92.5	97.6	55.8	96.8	89.3
Lanai	68.8	77.5	66.6	95.1	84.9	*
TOTAL ACUTE						
Oahu w/o Tripler	78.1	79.1	76.5	70.8	67.7	67.3
Hawaii	50.0	49.5	48.2	48.3	48.3	53.8
Kauai	51.8	57.4	49.5	43.8	50.0	44.4
Tri-Isle	54.9	59.1	62.3	58.2	57.8	61.5
Maui	62.1	65.5	67.3	60.4	62.6	65.4
Molokai	20.0	19.3	34.0	41.4	17.3	25.0
Lanai	1.7	5.0	13.3	12.7	12.9	*
MEDICAL-SURGICAL						
Oahu w/o Tripler	81.7	83.0	77.2	69.8	68.2	68.8
Hawaii	63.3	63.9	60.8	62.4	62.3	65.1
Kauai	58.6	64.1	54.2	45.8	54.5	47.6
Tri-Isle	70.4	76.8	81.8	65.2	65.0	67.7
Maui	79.3	82.5	86.0	66.1	70.5	72.3
Molokai	28.8	37.5	55.0	67.4	21.5	25.0
Lanai	3.3	10.0	23.3	22.5	22.2	*
CRITICAL CARE (ICU/CCU)						
Oahu w/o Tripler	68.5	80.0	73.5	63.6	61.1	63.6
Hawaii	41.9	41.7	39.0	44.9	41.3	50.0
Kauai	6.0	36.0	28.0	29.5	33.4	30.0
Maui	57.5	62.3	63.8	51.9	52.9	27.8
OBSTETRICS						
Oahu w/o Tripler	76.3	76.8	81.4	80.7	75.2	68.4
Hawaii	37.8	35.9	33.6	33.7	35.3	36.8
Kauai	40.6	46.0	46.3	38.5	37.9	37.5
Tri-Isle	28.9	27.9	30.0	32.3	27.6	26.1
Maui	33.3	32.5	34.1	39.0	33.6	33.3
Molokai	12.5	10.0	10.0	8.9	4.7	...
Lanai	-	1.0	5.0	6.3	9.9	*
PEDIATRICS						
Oahu w/o Tripler	46.9	47.8	60.0	54.8	52.4	47.7
Hawaii	18.5	16.7	19.0	14.2	14.4	31.3
Kauai	48.3	43.3	35.0	...	...	...
Tri-Isle	25.7	35.5	31.4	76.2	70.7	80.0
Maui	25.8	40.5	35.0	76.2	70.7	80.0
Molokai	10.0	5.0	10.0	...	...	...
PSYCHIATRIC						
Oahu w/o Tripler	103.0	90.5	78.3	78.9	62.1	75.1
Hawaii	41.7	39.6	49.0	35.5	35.0	32.1
Kauai	46.7	36.7	45.6	48.0	49.2	44.4
Tri-Isle	21.9	20.0	19.4	37.6	35.6	50.0
Maui	24.3	22.4	22.1	41.3	39.1	50.0
Molokai	2.0	3.0	...	...	...	...

* data not available
SHPDA: June 1987

TABLE 6
AVERAGE DAILY CENSUS BY COUNTIES
STATE OF HAWAII 1981 -1986

	1981	1982	1983	1984	1985	1986
LONG TERM CARE						
Oahu	1644.2	1669.9	1656.8	1696	1720	1753
Hawaii	386.8	387.4	387.8	384	385	379
Kauai	122.4	125.8	128.5	131	136	127
Tri-Isle	333.8	339.9	346.4	341	349	343
Maui	319.0	322.6	329.4	321	328	330
Molokai	9.4	11.1	11.7	12	14	13
Lanai	5.5	6.2	5.3	8	7	*
TOTAL ACUTE						
Oahu w/o Tripler	1376.1	1417.5	1357.1	1280	1284	1295
Hawaii	131.0	129.6	122.5	124	122	135
Kauai	74.0	82.1	70.8	56	59	52
Tri-Isle	93.9	98.7	104.1	98	101	104
Maui	...	95.6	98.2	93	97	100
Molokai	3.0	2.9	5.1	4	3	4
Lanai	.1	.3	.8	1	1	*
MEDICAL-SURGICAL						
Oahu w/o Tripler	1039.1	1070.9	1011.2	913	889	910
Hawaii	89.9	90.7	86.3	90	88	97
Kauai	59.8	65.3	54.4	43	45	39
Tri-Isle	74.6	78.3	83.4	78	83	84
Maui	72.2	75.1	78.3	74	79	81
Molokai	2.3	3.0	4.4	3	3	3
Lanai	.1	.1	.7	1	1	*
CRITICAL CARE (ICU/CCU)						
Oahu w/o Tripler	95.2	109.6	118.5	95	94	98
Hawaii	8.8	8.7	8.2	9	9	10
Kauai	.6	3.6	2.8	3	3	3
Maui	4.6	5.0	5.1	4	5	5
OBSTETRICS						
Oahu w/o Tripler	114.5	115.2	120.5	118	111	100
Hawaii	13.6	12.9	12.1	12	13	14
Kauai	6.5	7.4	7.4	6	6	6
Tri-Isle	7.5	7.2	7.9	7	6	6
Maui	7.0	6.8	7.5	7	6	6
Molokai	.5	.4	.4	...	...	...
PEDIATRICS						
Oahu w/o Tripler	65.6	67.5	52.3	47	45	42
Hawaii	6.3	5.7	6.5	5	5	5
Kauai	2.9	2.6	2.1	...	...	...
Tri-Isle	3.6	5.0	4.4	4	4	4
Maui	3.5	4.9	4.2	4	4	4
Molokai	.2	.1	.2	...	...	...
PSYCHIATRIC						
Oahu w/o Tripler	61.8	54.3	54.8	83	120	145
Hawaii	12.5	11.5	10.3	7	7	9
Kauai	4.2	3.3	6.9	4	4	4
Tri-Isle	3.5	3.2	6.3	4	4	5
Maui	3.4	3.1	6.3	4	4	5
Molokai	.02	.03	...	...	...	...
MENTALLY RETARDED						
State	405.4	360.4	...	346	321	289
SPECIALTY						
State	365.4	390.3	...	383	385	356

* data not available
SHPDA: June 1987

TABLE 7
NUMBER OF ADMISSIONS BY COUNTY
STATE OF HAWAII 1981 - 1986

	1981	1982	1983	1984	1985	1986
LONG TERM CARE						
Oahu	1537	1572	1478	1373	1522	1526
Hawaii	464	420	607	513	490	468
Kauai	126	131	178	247	254	233
Tri-Isle	351	375	311	473	309	337
Maui	331	348	282	446	281	289
Molokai	13	20	20	23	19	48
Lanai	7	7	9	4	9	*
TOTAL ACUTE						
Oahu w/o Tripler	77152	78155	78459	73955	61416	67499
Hawaii	10206	11526	10455	10328	10313	11006
Kauai	4565	5400	5597	4697	4909	5204
Tri-Isle	7324	7293	7820	7550	7835	7995
Maui	6868	6866	7253	7007	7406	7626
Molokai	436	395	500	478	331	369
Lanai	20	37	67	65	98	*
MEDICAL-SURGICAL						
Oahu w/o Tripler	51495	51335	51853	47292	45222	43654
Hawaii	7272	7160	6017	6023	6038	6469
Kauai	2952	3187	3310	2942	3117	3554
Tri-Isle	4882	4765	5148	5009	5386	5433
Maui	4590	4478	4752	4572	5024	5130
Molokai	272	253	351	387	283	303
Lanai	20	34	45	50	79	*
CRITICAL CARE (CCU/ICU)						
Oahu w/o Tripler	4757	5522	5585	5686	5878	6085
Hawaii	993	1085	1093	1304	1272	1443
Kauai	111	631	698	588	611	563
Maui	556	575	714	545	563	540
OBSTETRICS						
Oahu w/o Tripler	12727	13203	14018	13653	12734	11216
Hawaii	2084	2079	2025	2061	1924	2022
Kauai	955	1033	1028	921	891	912
Tri-Isle		1290	1419	1390	1238	1236
Maui		1182	1306	1288	1173	1169
Molokai	113	105	100	911	48	66
Lanai	-	3	13	11	17	*
PEDIATRICS						
Oahu w/o Tripler	6106	6357	5023	4416	4209	3381
Hawaii	806	739	837	661	633	617
Kauai	347	361	341	...	...	...
Tri-Isle	442	456	463	399	437	486
Maui	398	452	414	399	439	486
Molokai	44	4	49	...	...	...
PSYCHIATRIC						
Oahu w/o Tripler	2067	1738	2000	2556	3565	3851
Hawaii	562	463	483	434	446	455
Kauai	200	188	220	246	290	185
Tri-Isle	140	182	176	207	211	247
Maui	133	174	176	207	209	247
Molokai	7	8	...	...	...	...
Lanai	...	...	...	...	2	*

* data not available
SHPDA: June, 1987

FAMILY HEALTH SERVICES DIVISION

FAMILY HEALTH SERVICES DIVISION

Summary

The Family Health Services Division administers and coordinates programs concerned with the provision and promotion of health services to families, including women of childbearing age, infants, children and youth, and of community services for the developmentally disabled. These programs are carried out through the Maternal and Child Health Branch, which includes Family Planning; the Crippled Children Services Branch; the Community Services for the Developmentally Disabled Branch; and the School Health Services Branch.

The **Maternal and Child Health Branch** accomplishes its functions through three organizational sections: (1) family planning, (2) maternal and infant, and (3) children and youth. The goal of the Maternal and Child Health Branch (MCH) Branch is to assure that all women of childbearing age, infants and children in the State of Hawaii achieve and maintain optimal health. The Branch provides leadership and advocacy to strengthen the health delivery systems of services to women and children, integrating both the public and private sectors. The methods used include direct service provision, cooperative interagency agreements, purchase of service contracts, training others to provide the service, developing community resources, and coordinating existing community resources.

Family Planning Services Section: The Office of Family Planning provides overall planning, data collection and evaluation; monitoring, training and technical assistance; and coordination and development for the public-assisted family planning programs in Hawaii. The Office of Family Planning manages the Hawaii Family Planning Data System and conducts special projects, such as the Family Planning Information Line.

Through direct (Rural Oahu Family Planning Project) and contractual services (neighbor islands and urban Honolulu), the Office of Family Planning offers family planning health education and clinical services at many locations throughout the State.

Maternal and Infant Services Section: The MCH Branch offers two programs which address the concerns of the maternal-fetal/infant population.

The Regional Perinatal Planning Program (RPPP) has the responsibility to develop and implement a regional perinatal health system for Hawaii. Contracted through and located at Kapiolani Medical Center for Women and Children, which is the designated regional perinatal center, a tertiary center, RPPP coordinates services to prevent high-risk pregnancies from occurring, and to prevent the harmful effects of high-risk pregnancies on the mother and infant.

Maternity and Infant Care Project's services include multi-disciplinary prenatal care; community prenatal education; parent education for the community, particularly pregnancy adolescents; family planning services; in-hospital family planning education; high-risk infant care for a one-year period; and referral to child health clinics. Project activities are available in the Waimanalo, Hilo, Kona and Ka'u communities.

Children and Youth Services Section: Programs provided by the Branch address the needs of children and youth:

Child Health Conferences: Public health nurses conduct these clinics, available to all children six years and under to provide health assessment, immunization, referral to other agencies when needed, and counseling in childrearing, nutrition, and preventive mental health.

Early and Periodic Screening, Diagnosis and Treatment (EPSDT): Historically, this program introduced the EPSDT concept into the State with outreach activities, screening clinics and follow-up monitoring of referrals for Medicaid individuals 0-21 years of age. With increased support and participation of private providers, provision of clinics is no longer a community need.

The EPSDT thrust will now be to promote individual and family education and advocacy through outreach and networking to develop a quality assurance program, support a case management system that would assure health services to individuals and assist in processes that would provide a statewide information system as well as promote an integrated service system to children. The goal is that the EPSDT concept should be a standard of health care for all children.

Preschool Developmental Screening Program: Training and consultation is provided to preschool staff and other interested community providers to develop and conduct their own screening, and to make referrals to appropriate community agencies for necessary follow up which includes diagnostic evaluation for learning and/or developmental problems.

Waimanalo Children and Youth Project: Health care is provided to infants, children and adolescents in Waimanalo. Preventive and diagnostic services are available to any child under 16 years. Comprehensive services are offered to low-income children. Services include nutrition, social work, public health nursing, speech and hearing, pediatric clinic, and referral to specialists.

Hawaii Adolescent Family Life Project has been successful in developing and implementing community case management systems for pregnancy and parenting adolescents in Waianae, Hilo, and Ka'u.

The Teen Intervention Program at Kapiolani Medical Center for Women and Children provides counseling, case management and health education to pregnant adolescents statewide. A primary focus is the prevention of a second unintended pregnancy.

Teen Father Project: A special study is being done to identify needs, resources and strategies to reach and involve teen fathers in preventing problems of teen parenting.

Services of the Maternity and Infant Care Project and the Office of Family Planning are also available to adolescents.

Other areas of adolescent health, such as substance abuse, and suicide/depression, are addressed to some extent by MCH programs at the service provision level, but these affect relatively few people.

The **Crippled Children Services Branch** offers diagnostic evaluations by specialists to children under the age of 21 years who are suspected of having one of the eligible medical conditions (Table 7). An individual treatment plan is formulated for each client by an interdisciplinary team of health professionals. Treatment services for those children who are financially eligible and have an eligible medical condition include medical and surgical treatment, hospitalization, occupational and physical therapy, speech therapy, orthodontic and dental treatment, social work and nursing services.

The medical eligible conditions include major birth defects (such as cleft lip and palate, congenital heart disease, orthopedic conditions and spina bifida), also severe asthma, rheumatic fever and rheumatic heart disease, surgically correctable eye conditions, hearing impairment and certain neurologic disorders. The Branch also provides genetic counseling and diagnostic services, comprehensive myelodysplasia services, and comprehensive services for children with rheumatic disorders through Kapiolani Medical Center for Women and Children.

The Newborn Metabolic Screening Program is located here and will have program statistics beginning in fiscal year 1987.

The **Community Services for the Developmentally Disabled Branch** plans, organizes, coordinates, administers and evaluates community-based services to children and adults with developmental disabilities and their families. The continuum of services which is required to facilitate growth and development throughout life is provided by or contracted through the Department of Health. This service continuum begins with early identification, diagnostic and training services in infancy and extends through an array of adult activity programs and residential alternatives in the community.

The Child Study Section, through Child Development Clinics, provides early identification activities of diagnostic and evaluation services for children with suspected developmental problems. The Child Development Clinic provides itinerant services to the islands of Hawaii, Kauai, Maui and Molokai several times a year.

A total of 278 comprehensive diagnostic evaluations were completed during the fiscal year of which 57 were provided through neighbor island clinics. In addition, 138 individual evaluations were completed and 204 information and referral inquiries resolved.

The Community Program Section includes treatment/training programs for infants and young children with developmental disabilities and delays, respite care and residential services for developmentally disabled persons, and interdisciplinary support services to the case management system. These activities are carried out by two units: the Infant and Child Development Centers and the Community Support Services Unit.

The Infant and Child Development Centers provide a comprehensive individualized, developmental training program to developmentally disabled or delayed infants and children. Families and caretakers are also provided services to increase their knowledge, skills, attitudes and confidence for the purpose of giving their child an optimum environment for his development. Eight hundred and sixteen (816) children and their families received services during 1985-86; 437 were serviced in Department of Health programs; and 379 received service from private agencies through contracts with the Department.

The Community Support Services Unit provides direct services to developmentally disabled adults through an interdisciplinary team to maximize their potential, enhance their quality of life and sustain them in the community. The Unit is also responsible for developing community resources and providing training to community programs and caretakers. An array of support services are provided by the Unit staff and through contracted services such as therapeutic residential services. The Unit staff is responsible for developing standards, monitoring and evaluating the contracted services.

Placement and Continuing Services Section provided case management services to 907 developmentally disabled persons, who are primarily the mentally retarded, during fiscal year 1986. Case management services provided by social workers involved acquiring and coordinating various community services and programs to sustain developmentally disabled persons in the community, following their adjustments in living and training situations, advocating on their behalf, and constantly assessing needs to promote their welfare. Case management services were provided to 593 mentally retarded persons placed in the community from Waimano Training School and Hospital and 314 community-referred mentally retarded persons who were potential for first-time admissions to the institution. The Director of Health is guardian for 570 persons on leave from Waimano. By June 1986, Waimano residents on leave increased from the last report date from 586 to 593. The increase is attributed to residents being placed in the newly established small ICF/MR-C facililties in the community.

The Branch provides various activity programs to develop personal self-sufficiency, social- and work-related skills in developmentally disabled adults. These services include the Branch operations but are primarily contracted by the Branch. The numbers served in adult training programs were 879, which decreased from 949 in the previous year. The decrease was due to the reduction in client movements, increased program costs, and progression of clients to other community programs available for the general public.

The Branch provides respite care services through its foster home operations and contractual services. The numbers served in respite care programs were 392 developmentally disabled persons. The provider of services supplemented the funding by charging fees.

Under delegated responsibility from Department of Social Services and Housing, this Section develops, recruits, licenses, trains and monitors foster homes to provide care for developmentally disabled children in the community. As of June 30, 1986, there were 49 active foster homes, which provided 95 foster care beds. Thirteen (13) homes operated as group, therapy, teaching or respite homes by private agencies on contract with the Department and provided 23 care beds; the remaining 72 care beds were maintained by Branch.

The **School Health Services Branch** has a vital role to play in promoting and safeguarding the health of the school population. The goal of the Branch is to ensure that school-aged children will achieve their potential for effective physical, intellectual and emotional functioning as adults. The Branch focuses on the integration and coordination of health resources for the more than 200,000 school-aged children in Hawaii. Services are provided predominantly within the public schools.

The Branch divides its service into two sections. The School Health Services Section focuses on health promotion and preventive health care, early identification of health conditions, first aid services for illness and injury and referral of problems to appropriate resources in the community. With the advent of P.L. 94-142, there has been a greater demand for nursing services to children with specialized health care needs.

The School Health Support Services Section includes the Vision and Hearing Screening Unit and the Occupational Therapy and Physical Therapy Unit. The Vision and Hearing Screening Unit provides services for the early identification of specific sensory deficits in order to prevent interference with learning and adjustment. They provide uniform and regular screening, rescreening of students, issue medical referrals and conduct follow up with parents. Selected services are provided to the preschools and private schools.

The Occupational Therapy and Physical Therapy Unit provides evaluation, consultation and therapy services to the handicapped school population in accordance with P.L. 94-142. Therapy services are directed towards the development and maintenance of the handicapped child's potential for independence in all educationally related activities. The increase in the number of children requiring support services in schools outside of medical settings has necessitated an expansion and a change in the kinds of services therapist offer.

TABLE 1

NUMBER OF CLIENTS AND VISITS, FY 1986
STATE OF HAWAII
OFFICE OF FAMILY PLANNING
FAMILY PLANNING CLINICS

Contractual Service Providers and Service Area	Number of Clients		Number of Visits
	New*	Total	
Bay Clinic - East Hawaii	701	1,539	3,046
Kalihi-Palama Health Clinic - Urban Oahu	654	995	1,734
Hawaii Planned Parenthood - Kauai, Kona, Maui	1,452	2,931	5,892
Hilo Medical Group Ka'u Project - Ka'u District, Hawaii	43	55	67
Kapiolani Medical Center for Women and Children - Urban Oahu	675	1,651	3,229
Kokua Kalihi Valley - Urban Oahu	380	631	1,495
Molokai General Hospital - Molokai	156	340	721
Queen's Medical Center - Urban Oahu	617	945	1,727
University of Hawaii - Urban Oahu	659	1,631	3,311
Waikiki Health Center - Urban Oahu	618	862	1,262
Department of Health Service Providers and Service Area			
Rural Oahu Family Planning Project - Rural Oahu	1,439	2,616	5,197
Hilo Maternity & Infant Care Project - East Hawaii	44	252	942
Waimanalo Maternity & Infant Care Project - Waimanalo, Oahu	86	373	822
Lanai Family Health Center - Lanai	44	80	156
STATE TOTALS	7,568	14,901	29,601

*Clients new to agency

TABLE 2

NUMBER OF WOMEN AND INFANTS RECEIVING SERVICES
AT THE MATERNITY AND INFANT CARE PROJECT BY TYPE OF SERVICE
CALENDAR YEAR 1986
STATE OF HAWAII

Type of Service	Number of Women and Infants Receiving Services
Prenatal - total caseload[a/]	315
Prenatal - new admissions	195
Under 15 years old	2
15 years	2
16 - 34 years old	184
35 years and over	7
Total deliveries	176
Live births under 2501 grams	16
Infants admitted for High Risk Infant Care[b/]	16

[a/] Includes comprehensive, and educational/screening services.

[b/] High risk: having any prenatal, intrapartum, developmental or hereditary condition or other circumstance which increases the risk of survival and/or to normal development. Total number of new admissions.

TABLE 3

WAIMANALO CHILDREN AND YOUTH PROJECT ACTIVITIES
CALENDAR YEAR 1986
STATE OF HAWAII
MATERNAL AND CHILD HEALTH BRANCH
WAIMANALO CHILDREN AND YOUTH PROJECT

Type of Activity	No. of Encounters	No. of Children
Target population*	...	
Total number enrolled any part of 1986	...	1,961
Current enrollment, December 1986	...	1,675
New enrollees in 1986	...	259
Moved away and to PMD	...	196
Became over aged (16 years old)	...	90
Deceased	...	-
Medical Services		
Episodic Care	3,276	...
Health Assessments	4,559	887
Public Health Nursing Services		
Home Visits	392	...
Hospital Visits	126	107
Speech and Hearing Services		
Screening	877	...
Diagnostic	106	...
Therapy	-	...
Dental Referrals	544	256

*Based on adjusted figure from 1980 census.

TABLE 4

INFANTS AND CHILDREN PROVIDED PUBLIC HEALTH NURSING SERVICES IN CHILD HEALTH CONFERENCES
STATE OF HAWAII
FISCAL YEAR 1986

County	Total	Infants Under 1 Year	Children 1 Year and Over
Honolulu County	6,335	1,292	5,043
Hawaii County	1,576	324	1,252
Kauai County	594	195	399
Maui County	1,860	505	1,355
STATE TOTAL	10,365	2,316	8,049

Table 5

DISTRIBUTION OF CHILDREN RECEIVING SERVICES BY COUNTY AND AGE
CRIPPLED CHILDREN SERVICES BRANCH
STATE OF HAWAII, DEPARTMENT OF HEALTH
FISCAL YEAR 1985-86

COUNTY	Total	New	Old	<1	1-4	5-9	10-14	15-17	18-20	21
Kauai	134	46	87	5	58	25	28	13	5	0
Col %	8.1%	8.9%	7.7%	3.9%	11.3%	6.8%	9.0%	7.1%	4.4%	0.0%
Maui	160	53	107	14	45	26	29	29	14	4
Col %	9.8%	10.3%	9.5%	10.9%	8.7%	7.1%	9.0%	15.9%	12.4%	16.0%
Hawaii	395	129	266	26	108	108	93	35	24	1
Col %	24.1%	25.0%	23.7%	20.3%	21.0%	29.5%	29.9%	19.2%	21.2%	4.0%
Oahu	951	289	663	83	304	207	162	105	70	20
Col %	58.0%	55.9%	59.0%	64.8%	59.0%	56.6%	52.1%	57.7%	61.9%	80.0%
TOTALS	1,640	517	1,123	128	515	366	311	182	113	25
Row %		31.5%	68.5%	7.8%	31.4%	22.3%	19.0%	11.1%	6.9%	1.5%

Table 6

TYPE OF SERVICE PROVIDED
CRIPPLED CHILDREN SERVICES BRANCH
STATE OF HAWAII, DEPARTMENT OF HEALTH
FISCAL YEAR 1985-86

Type of Service	Service Units
Purchased	5,128
Clinic	2,603
Staff	4,795
Total	12,526

Table 7

DISTRIBUTION OF PRIMARY MEDICAL CONDITIONS
BY DIAGNOSTIC GROUP AND AGE
CRIPPLED CHILDREN SERVICES BRANCH
(Unduplicated Count)
STATE OF HAWAII, DEPARTMENT OF HEALTH

	Type of Case			Age of Child						
	TOTAL	NEW	OLD	<1	1-4	5-9	10-14	15-17	18-20	21
ALL CASES	1638	632	1006	182	479	318	285	169	116	89
CARDIAC DISORDERS										
Congenital Heart Disease	287	81	206	33	109	51	49	19	18	8
Diseases of Circulatory Systea	43	16	27	7	8	14	9	3	1	1
Other Heart Disease	2	1	1	0	1	1	0	0	0	0
Rheumatic Fever	72	14	58	0	0	9	27	24	12	0
Rheumatic Heart Disease	77	11	66	0	2	9	19	26	19	2
CRANIO-FACIAL DISORDERS										
Cleft Lip	31	3	28	1	16	6	4	3	0	1
Cleft Lip and Palate	75	9	66	5	22	15	12	12	7	2
Cleft Palate	5	0	5	0	3	2	0	0	0	0
Other Cranio-Facial Disorders	5	2	3	1	1	1	1	1	0	0
COMMUNICATION DISORDERS										
Conductive hearing loss	8	3	5	0	3	1	1	3	0	0
Non-Organic Speech Disorders	2	1	1	0	1	0	0	1	0	0
Organic Speech Disorders	1	0	1	0	0	0	1	0	0	0
Other Hearing Impairment	4	0	4	0	0	1	2	0	1	0
Sensorineural Hearing Loss	128	49	79	4	49	38	18	10	8	1
EAR DISORDERS										
Chronic Otitis Media	46	15	31	1	11	18	11	3	2	0
Other Ear Disease	3	1	2	0	3	0	0	0	0	0
GENETIC/CONGENITAL DISORDERS										
ALL G.I.	21	10	11	7	9	2	1	2	0	0
Genetic	211	211	0	69	37	12	11	5	8	69
G.U.	12	4	8	3	6	3	0	0	0	0
Inborn Errors	25	14	11	6	12	4	1	1	1	0
Other congenital	51	25	26	12	23	8	3	3	2	0
Congenital Ear Malformation	2	1	1	0	1	0	1	0	0	0
NEUROLOGICAL/NEUROMUSCULAR DISORDERS										
Cerebral Palsy	33	10	23	0	8	8	12	2	3	0
Congenital Hydrocephalus	9	6	3	3	6	0	0	0	0	0
Muscular Dystrophy	2	0	2	0	0	0	0	1	1	0
Seizure Disorders	116	24	92	1	29	27	32	14	11	2
Other Neurological Disease	18	9	9	2	5	5	2	2	2	0
MYELODYSPLASIA	66	6	60	4	19	16	15	4	7	1
ORTHOPEDIC DISORDERS										
Club Foot	21	3	18	2	8	5	5	1	0	0
Congenital Hip Dislocation	6	0	6	0	2	1	2	0	1	0
Congenital Limb Malformation	11	3	8	1	4	1	4	1	0	0
Polio	0	0	0	0	0	0	0	0	0	0
Scoliosis	22	3	19	0	2	3	7	8	1	1
Other orthopedic	33	10	23	3	9	11	5	4	1	0
PULMONARY DISORDERS										
Asthma	51	14	37	1	13	16	12	7	1	1
Cystic Fibrosis	1	0	1	0	1	0	0	0	0	0
Other Respiratory disorders	1	1	0	0	0	1	0	0	0	0
RHEUMATOID ARTHRITIS	7	2	5	0	1	3	2	1	0	0
VISUAL DISORDERS										
Cataract	4	2	2	0	2	2	0	0	0	0
Other Visual	4	3	1	1	1	1	0	0	1	0
Strabismus	15	5	10	1	8	5	1	0	0	0
MISCELLANEOUS										
Accidents	1	0	1	0	0	0	0	1	0	0
Burns	3	0	3	0	0	0	0	2	1	0
Deferred diagnosis	8	1	7	0	3	1	2	0	2	0
Learning Disability	76	57	19	13	36	15	10	2	0	0
Mental Retardation	4	0	4	0	0	0	3	0	1	0
No abnormalities	2	1	1	1	0	0	0	0	1	0
Other Miscellaneous	12	1	11	0	4	2	0	3	3	0
Perinatal Complications	1	0	1	0	1	0	0	0	0	0

TABLE 8
INFANT AND CHILD DEVELOPMENT PROGRAM
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii

Programs and Location	Geographical Areas Served	Total No. of Children FY 1985-86	Agency
Oahu			
Lanakila Infant Development Program 1700 Lanakila Avenue Honolulu, HI 96817	Stadium Area, Hickam, Pearl Harbor, Halawa Heights Road to Queen Emma Street	92	DOH
Leeward Infant Development Program 860 Fourth Street Pearl City, HI 96782	Makakilo, Ewa, Ewa Beach, Waipahu, Pearl City, Aiea to Halawa Heights Road	147	DOH
Sultan Easter Seal School (Easter Seal Society of Hawaii, Inc.) 710 Green Street Honolulu, HI 96813	East to Liliha to Vineyard Street, South of Vineyard to Waiakamilo, to Hawaii Kai	60	Private
United Cerebral Palsy Association of Hawaii 245 No. Kukui Street Room 207 Honolulu, HI 96817	Oahu-wide	24	Private
Wahiawa Infant Development Program 330 Walker Avenue Wahiawa, HI 96786	Wahiawa, Waialua, Pupukea to Mililani	66	DOH
Waianae Coast Day Care Center, Inc. 84-1061 Noholio Road Waianae, HI 96792	Makaha, Waianae, Maile, Nanakuli	42	Private
Windward Infant Development Program 45-691 Keaahala Road Kaneohe, HI 96744	Waimanalo to Kahuku	87	DOH
Maui			
IMUA Society for Crippled Children & Adults of Maui County 95 Mahalani Street Wailuku, Maui 96793	Islands of Maui, Lanai & Molokai	123	Private
Kauai			
Easter Seal Society of Hawaii, Inc. 4364 Hardy Street P. O. Box 667 Lihue, Kauai 96766	Island of Kauai	58	Private
Hawaii			
Easter Seal Society of Hawaii, Inc. 49 Kaiulani Street Hilo, Hawaii 96720	Pahoa to Hilo, Honokaa/Waimea to Hilo	72	Private
Kona Infant Development Program P. O. Box 228 Kealakekua, HI 96750	Kona, Kailua/Kona	45	DOH
	Total Children Served.. 816		

TABLE 9
NUMBER OF MENTALLY RETARDED IN
CASE MANAGEMENT SERVICES
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii
Fiscal Year 1986

Total	907
Leave Population	593
Community Referred Population	314

TABLE 10
STATISTICAL MOVEMENT OF RESIDENTS FROM
WAIMANO TRAINING SCHOOL AND HOSPITAL
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii
Fiscal Year 1986

Residents on Leave at Start of Year	586
Community Placements	24
Discharge While on Leave	7
Deaths on Leave	7
Returns from Community Placement	1
Residents on Leave at End of Year	593

TABLE 11
LEAVE POPULATION, WAIMANO, JUNE 30
BY MEASURED INTELLIGENCE
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii
Fiscal Year 1986

Measured Intelligence	Leave Population on June 30
Total	586
I. Mild	125
II. Moderate	156
III. Severe	180
IV. Profound	118
Borderline	6
Undetermined Intelligence	1

TABLE 12
ACTIVITY PROGRAMS
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii
Fiscal Year 1986

Area	Type of Program	Numbers Served
	Total	879
Oahu	Nonvocational social	61
	Day Treatment	43
	Day Activity	204
	Pre-Vocational	224
	Work Activity	79
Hawaii	Day Activity	45
	Pre-Vocational	29
	Work Activity	62
Maui	Day Activity	47
	Pre-Vocational	16
	Work Activity	0
Kauai	Nonvocational social	17
	Day Activity	32
	Pre-Vocational	0
	Work Activity	20

NOTE: Numbers include DOH operations and contracted programs.

TABLE 13
RESPITE CARE PROGRAMS
NUMBERS SERVED AND GEOGRAPHIC AREAS COVERED
Community Services for the Developmentally Disabled Branch
Department of Health, State of Hawaii
Fiscal Year 1986

Agency	Area	Numbers Served
	Total	392
DOH	Oahu	3
Easter Seal Society	Oahu	235
ARC, Hilo	Hawaii	35
ARC, Maui	Maui	53
ARC, Kauai	Kauai	66

TABLE 14
TOTAL NUMBERS OF HEALTH ROOM VISITS, a/
REASONS FOR VISIT AND DISPOSITION
School Health Services Branch
Department of Health
State of Hawaii
By School Year From 1981-82 Through 1985-86

	1981-82	1982-83	1983-84	1984-85	1985-86
Total visits to health room	550,837	550,661	501,515	524,973	521,339
Reason for visit: (Students Only) b/					
Illness	(45.68) 251,618	(44.26) 243,712	(44.75) 224,412	(45.33) 237.993	(43.43) 226,424
Injury	(39.53) 217,746	(39.72) 218,723	(39.11) 196.141	(37.97) 199,318	(38.63) 201,416
Medication	(5.22) 28,729	(6.15) 33,854	(6.13) 30,733	(7.02) 36,875	(8.42) 43,882
TLC	(3.57) 19,677	(4.45) 24,511	(4.72) 23,688	(4.10) 21,540	(4.19) 21,837
Non-health	(5.82) 32,085	(5.25) 28,909	(5.14) 25,770	(5.57) 29,247	(5.33) 27,780
Disposition: (Students and Staff)					
Sent home	(20.89) 115,088	(19.86) 109.367	(19.67) 98,672	(21.05) 110.519	(19.86) 103,561
Returned to class	(77.25) 425,496	(78.31) 431,241	(78.43) 393,322	(77.14) 404,974	(78.41) 408,773
Remained in health room	(1.86) 10,253	(1.83) 10,053	(1.90) 9,521	(1.81) 9,480	(1.73) 9,005

Total health room visits include students and staff.

a/ Numbers are approximate

b/ Numbers in parenthesis represent percentages of annual health room visits.

TABLE 15
HEALTH PROBLEM SUMMARY LIST
School Health Services Branch
Department of Health
State of Hawaii
1985-86

CONDITION	DISTRICT							
	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Totals
Allergy	455	1,039	1,586	1,107	919	405	330	5,841
Anemia	48	6	22	12	6	7	5	106
Anorexic	-	-	-	-	1	-	1	2
Arthritis	10	11	11	12	13	3	1	61
Asthma	667	782	1,238	927	892	462	690	5,658
Battered Child Syndrome	13	4	22	13	22	10	1	85
Cancer	12	10	23	22	7	2	1	77
Cardiac	121	58	115	97	109	44	38	582
Cerebral Palsy	68	30	50	48	27	13	12	248
Child Neglect	-	-	28	4	-	-	2	34
Cystic Fibrosis	1	7	8	1	-	-	-	17
Diabetes Mellitus	28	12	37	27	19	13	7	143
Ear	765	410	413	522	571	338	157	3,176
Eye	233	112	187	172	278	111	136	1,229
Glomerulonephritis	11	27	10	3	8	10	4	73
Hansen's Disease	2	-	-	1	-	-	-	3
Hemophilia	-	6	3	4	3	1	1	18
Hypertension	8	7	7	7	7	2	6	44
Hyperthyroidism	6	2	8	2	1	-	2	21
Hypothyroidism	5	-	5	2	9	-	1	22
Muscular Dystrophy	7	4	4	13	2	3	4	37
Obesity	82	82	90	150	52	9	25	490
Pregnant	92	53	38	102	116	24	14	439
Rheumatic Fever	26	21	6	26	28	6	3	116
Scoliosis	164	139	240	168	273	69	37	1,090
Seizures	188	215	152	184	141	77	33	990
Spina Bifida	10	5	7	11	4	1	3	41
Suicide	15	11	14	7	3	2	1	53
Tuberculosis	-	-	-	-	-	-	-	-
Other	248	309	169	263	60	100	47	1,196
TOTAL	3,285 (9.5%)	3,362 (17.4%)	4,493 (14.1%)	3,907 (13.3%)	3,571 (17.1%)	1,712 (11.5%)	1,562 (18.9%)	21,892

a/ Numbers are approximate

TABLE 16
REASON FOR STUDENTS HEALTH ROOM VISITS BY ISLANDS [a]
School Health Services Branch
Department of Health
State of Hawaii
1985-86

Island	Injury	Illness	Medication		TLC	Non-health
			SA [c]	Auth. [d]		
Oahu	163,698	180,400	6,661	35,115	16,864	21,011
Hawaii	9,732	13,930	107	461	780	1,154
Maui [b]	16,475	20,058	140	1,316	2,775	2,118
Kauai	11,511	12,036	80	2	1,418	3,497
TOTAL	201,416	226,424	6,988	36,894	21,837	27,780

a/ Numbers are approximate.
b/ Maui includes the islands of Maui, Molokai and Lanai.
c/ Self-administration
d/ Authorized.

TABLE 17
DISPOSITION OF STUDENTS AFTER HEALTH ROOM VISITS, BY ISLANDS [a]
School Health Services Branch
Department of Health
State of Hawaii
1985-86

Island	Total Seen		Sent Home	Returned to Class	Remained in Health Room
	Students	Adults			
Oahu	423,224	525	(19.6) [c] 82,801	(78.9) [c] 334,015	(1.6) [c] 6,933
Hawaii	26,142	22	(23.2) 6,062	(75.0) 19,619	(1.8) 483
Maui [b]	42,786	96	(18.8) 8,044	(79.0) 33,799	(2.4) 1,039
Kauai	28,491	53	(23.4) 6,654	(74.9) 21,340	(1.9) 550
TOTAL	520,643	696	103,561	408,773	9,005

a/ Numbers are approximate.
b/ Maui includes the islands of Maui, Molokai and Lanai.
c/ Numbers in parenthesis are percentages of total seen.

TABLE 18
SCOLIOSIS SCREENING STATISTICS SUMMARY
GRADE 8 - PUBLIC SCHOOLS (SPECIAL EDUCATION INCLUDED)
School Health Services Branch
Department of Health
State of Hawaii
1985-86

	Number	Percent
I. Total Target Group	11,309	100.0
A. Students Screened	10,405	(92.0%)
1. Female	4,906	(47.2%)
2. Male	5,499	(52.8%)
B. Students with Abnormal Findings	588	(5.7%)
1. Recheck in one year	282	(48.0%)
2. Referred to M.D.	306	(52.0%)
a. Students seen by M.D., others	160	(52.3%)
1. Confirmed Scoliosis	111	(69.4%)
a) Female	84	(75.7%)
b) Male	27	(24.3%)
c) New Cases	90	(81.1%)
1. Treatment started	86	(95.6%)
a- Observation	65	(75.6%)
b- Exercises	7	(8.1%)
c- Bracing	4	(4.7%)
d- Surgery	2	(2.3%)
e- Other	8	(9.3%)
2. No follow-up	4	(4.4%)
d) Students known to M.D., unknown to school	21	(18.9%)
2. Negative for Scoliosis no follow-up	16	(10.0%)
3. Negative for Scoliosis, follow up	18	(113.%)
4. Conditions other than Scoliosis	15	(9.4%)
b. Students, pending appointments	97	(31.7%)
c. No follow-up by student; transferred out	49	(16.0%)
C. Students not Screened	904	(8.0%)
1. Already known/under care	130	(14.4%)
2. Absent from school	543	(60.1%)
3. Parent refusal	136	(15.0%)
4. Student refusal	95	(10.5%)

1) 2.9% of all students screened
2) Incidence rate: 90 new cases divided by 10,405 students screened=0.9%
3) Prevalence rate: 111 confirmed scoliosis cases + 120 cases known to doctor + 241 known cases under doctor's care divided by 11,309 (target group) =2.1%.

TABLE 19
VISION STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
1985-86

Type of School	Total Number Screened	Number Referred	% Ref.	No. of Completed Referrals	% Comp. Ref.	No. New Deficit Findings	% New Def. Find.	% Def. Find. of. No. Screen.	No. New Glasses Prescribed	% New Glasses	% New Glass of No. Screen	% Over. Ref.
Preschools	8,724	60	0.7	41	68	34	83	0.4	10	29	0.1	17
Dept. of Educ.	109,181	2,804	2.6	1,827	65	1,660	91	1.5	1,147	69	1.1	6.6
Oahu	77,262	2,144	2.8	1,368	64	1,244	91	1.6	847	68	1.1	6.3
Hawaii	14,978	259	1.7	173	67	152	88	1.0	116	76	0.8	7.5
Maui	11,178	322	2.9	226	70	205	91	1.8	132	64	1.2	8.8
Kauai	5,763	79	1.4	60	76	59	98	1.0	52	88	0.9	1.7
Total	117,905	2,864	2.4	1,868	65	1,694	91	1.4	1,157	68	1.0	6.8

TABLE 20
HEARING STATISTICS
School Health Services Branch
Department of Health, State of Hawaii
1985-86

Type of School	New Cases			Old Cases			No. of Completed Referrals*	% Comp. Ref.	Number Deficit Finding	% Def. Find.	% Def. Find. of Number Screened*	% Over Ref.
	Number Screened	Number Referred	% Referred	No. Tested	No. Referred	% Referred						
Preschools	8,386	373	4	161	45	28	298	71	263	88	3.1	12
Private/Parochial Schools	11,906	152	1	375	61	16	147	69	119	81	1.0	19
Dept. of Educ.	82,862	1,575	2	4,284	987	23	1,605	63	1,354	84	1.6	16
Oahu	57,424	1,132	2	2,880	641	22	1,126	64	933	83	1.5	17
Hawaii	13,362	191	1	700	161	23	235	67	212	90	1.5	10
Maui	7,679	175	2	435	120	28	189	64	165	87	2.0	13
Kauai	4,397	77	2	269	65	24	55	39	44	80	0.9	20
Total	103,234	2,100	2	4,820	1,093	23	2,050	64	1,736	85	1.6	15

*Includes old cases.

TABLE 21
NUMBER OF STUDENTS RECEIVING OCCUPATIONAL THERAPY SERVICES
BY CATEGORY AND DISTRICT, FISCAL YEAR 1985-86
School Health Services Branch
Department of Health, State of Hawaii

	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Total
Severely Multiply Handicapped	38	20	34	44	22	20	13	191
Learning Disabled	115	166	153	82	76	9	14	615
Mild Ment. Retarded	28	25	28	15	12	9	9	126
Mod. Ment. Retarded	25	11	23	21	16	2	2	100
Sev./Prof. Ment. Retarded	16	4	5	7	7	2	2	43
Ortho. Handicapped	63	9	34	24	22	2	6	160
Deaf/Blind	3	-	1	-	-	-	-	4
Emot. Handicapped	14	6	29	8	4	2	1	64
Visually Impaired	9	-	4	1	-	-	2	16
Hearing Impaired	3	6	1	2	1	1	1	15
Learning Impaired	20	19	36	19	31	7	4	136
Others	41	33	33	47	34	5	24	217
Total	375	299	381	270	225	59	78	1687

TABLE 22
NUMBER OF STUDENTS RECEIVING PHYSICAL THERAPY SERVICES
BY CATEGORY AND DISTRICT, FISCAL YEAR 1985-86
School Health Services Branch
Department of Health, State of Hawaii

	Honolulu	Windward	Central	Leeward	Hawaii	Maui	Kauai	Total
Severely Multiply Handicapped	42	19	37	48	23	20	14	203
Learning Disabled	33	11	10	11	6	7	10	88
Mild Ment. Retarded	18	4	7	9	6	10	11	65
Mod. Ment. Retarded	29	4	13	6	10	2	2	66
Sev./Prof. Retarded	12	1	4	6	8	1	1	33
Ortho. Handicapped	67	14	53	32	38	7	5	216
Deaf/Blind	-	2	-	-	-	-	-	2
Emot. Handicapped	-	-	5	-	1	-	-	6
Visually Impaired	6	-	3	-	2	-	2	13
Hearing Impaired	5	-	3	3	-	2	2	15
Learning Impaired	14	11	21	13	16	5	5	85
Others	19	6	15	13	14	3	14	84
Total	245	72	171	141	124	57	66	876

COMMUNICABLE DISEASE DIVISION

EPIDEMIOLOGY BRANCH
INFECTIOUS DISEASE SUMMARY

There was a general decrease in infectious diseases reported in 1986, with a total of 9,767 reports in 1986 following 11,341 in 1985.

ENTERIC DISEASES. Salmonellosis increased with 428 reports in 1986 and 337 in 1985, while shigellosis decreased from 138 in 1985 to 81 in 1986. Typhoid fever increased from 5 cases in 1985 to 8 cases in 1986.

INFECTIOUS MENINGITIS. Aseptic meningitis increased with 137 cases in 1985 to 192 cases in 1986, while bacterial meningitis decreased slightly from 38 to 34.

INFLUENZA. Influenza incidence decreased dramatically from 1,009 cases in 1985 to 316 in 1986, a return to approximately the 1984 level of 328. As in 1985, the majority of the isolates were Type A (A/Philippines/2/82) and Type (B/USSR/100/83), but late in the season Influenza A/Taiwan/1/86 was isolated and identified.

SEXUALLY TRANSMITTED DISEASES. There were 1,619 gonorrhea cases reported for calendar year 1986. This is the sixth consecutive year Hawaii has recorded a decrease in the total number of gonorrhea cases reported. The gonorrhea case rate of 152.4 cases per 100,000 population is lower than the case rate reported in 1970. The continued large decrease in male gonorrhea cases (primarily male homosexual gonorrhea cases) has resulted in a leveling off of the proportion of male to female gonorrhea cases. Fifty-eight (58) percent of the total gonorrhea cases reported in 1986 were in men, which is the lowest proportion since 1973.

There were 97 Penicillinase-producing Neisseria gonorrhoeae (PPNG) reported in 1986. Almost all of these cases were either directly imported by travelers from the Far East or were epidemiologically linked to the Far East, indicated little endemic spread of PPNG in Hawaii.

There were 48 infectious syphilis cases reported in 1986, which is the lowest number reported since 1970. However, it is too early to predict any long-term trend in early infectious syphilis based on this large decrease in one year.

Hawaii reported 58 new AIDS cases in Calendar Year 1986. The cumulative total number of AIDS cases reported in Hawaii through 1986 is 120 AIDS cases of which 60 are known to have died.

VACCINE-PREVENTABLE DISEASES. There was a slight increase in reported cases of measles with 37 in 1986 vs. 31 in 1985, and reflects a continuing increase in morbidity when compared with an average of five per year for the period 1980 through 1983.

Fifty-one pertussis infections were reported during 1986, twice the number reported in 1985, but only one-half of the infections reported in 1984.

Eight cases of rubella were confirmed in 1986. This represents a significant decrease from the 44 cases reported in 1985, and is more in line with the average of 9 cases per year reported from 1978 to 1985.

There were 24 cases of mumps reported during the year, an increase over the 19 cases reported in 1985. There were no cases of poliomyelitis, tetanus or diphtheria reported during 1986.

ZOONOTIC DISEASES. The general downward trend in zoonotic disease incidence continued in 1986. Reported cases of leptospirosis dropped from 12 in 1985 to 11 in 1986. The number of cases of murine typhus declined from 2 reported in 1985 to 1 in 1986. Psittacosis/ornitrosis case numbers decreased from 2 in 1985 to 1 in 1986.

TABLE 1
NUMBER OF CASES AND DEATHS FROM COMMUNICABLE DISEASES
STATE OF HAWAII, 1982, 1983, 1984, 1985 and 1986

Disease	1982		1983		1984		1985		1986	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Total	10,310	18	11,299	14	8,496	25	11,341	20	9,707	17
Amebiasis	33	-	18	-	15	-	6	-	10	-
Brucellosis	-	-	-	-	-	-	-	-	1	-
Chancroid	1	-	-	-	-	-	-	-	-	-
Chickenpox	820	-	1,442	-	834	-	1,494	-	1,386	-
Conjunctivitis, infectious	217	-	56	-	48	-	157	-	185	-
Diphtheria	-	-	-	-	-	-	-	-	-	-
Encephalitis, primary & post-infectious	20	-	11	-	5	-	3	-	3	1
Gonorrhea	3,706	-	2,886	-	2,664	-	2,162	-	1,619	-
Hansen's Disease a/	59	1	46	-	105	5	31	-	37	-
Hepatitis A	81	-	55	-	33	1	109	-	14	-
Hepatitis B	87	3	73	1	74	4	135	4	77	2
Hepatitis non-A, non-B	9	-	15	-	12	-	10	-	6	-
Hepatitis unspecified	10	2	10	-	11	1	6	3	4	-
Hookworm b/	91	-	69	-	3	-	5	-	-	-
Influenza	222	-	494	1	328	-	1,009	-	316	3
Leptospirosis	29	-	16	-	13	-	12	-	11	-
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-	-
Malaria c/	7	-	2	-	5	-	17	-	1	-
Measles (Rubeola)	6	-	2	-	142	-	31	-	37	-
Meningitis, aseptic & viral	230	2	253	-	108	-	137	-	192	-
Meningitis, bacterial (All types) d/	51	3	66	2	39	3	38	3	34	4
Meningitis, meningococcal	(5)	(1)	(5)	-	(3)	-	(9)	-	(3)	-
Meningitis, unspecified	-	-	-	-	-	-	-	2	-	-
Mononucleosis, infectious	44	-	65	-	30	-	58	-	38	-
Mumps	21	-	20	-	22	-	19	-	24	-
Pertussis	28	-	3	-	102	-	24	-	51	-
Poliomyelitis	-	-	-	-	-	-	-	-	-	-
Rubella	9	-	1	-	5	-	44	-	8	-
Rubella, congenital	-	-	-	-	-	-	-	-	-	-
Salmonellosis	499	1	335	-	380	-	337	-	428	1
Scarlet fever & other strep infections	3,474	-	4,814	-	2,973	-	5,036	-	4,892	-
Shigellosis	95	-	134	-	165	-	138	-	81	-
Syphilis, primary & secondary	120	-	99	-	92	-	88	-	38	-
Syphilis, early latent	66	-	47	-	54	-	30	-	10	-
Syphilis, late & late latent	5	-	13	-	4	-	5	-	8	-
Tetanus	-	-	-	-	1	-	3	-	-	-
Trichinosis	5	-	1	-	1	-	1	-	7	-
Tuberculosis	252	6	236	10	218	11	189	8	180	6
Typhoid fever	4	-	4	-	5	-	5	-	8	-
Typhus fever, endemic	9	-	13	-	5	-	2	-	1	-

a/ 1982-1984 includes reinstated cases. 1985-1986 excludes reinstated cases.
b/ DOH discontinued hookworm testing in 1984.
c/ Malaria acquired outside the State.
d/ Includes meningitis, meningococcal.

TABLE 2

SELECTED COMMUNICABLE DISEASE RATES PER 100,000 POPULATION
IN STATE OF HAWAII 1982-1986

Year	1982	1983	1984	1985	1986
Population	994,000	1,023,200	1,038,700	1,053,900	1,062,300
			Rates Per 100,000 Population		
All Communicable Diseases	1,037	1,104	818	1,076	914
Gonorrhea	373	282	257	205	152
Communicable Disease (Exclusive of STD)	645	807	547	859	756
Scarlet Fever & Other Strep Infections	350	471	286	478	461
Influenza	22	48	32	96	30
Chickenpox	83	141	80	142	131
Mumps	2	2	2	2	2
Rubella	1	0	1	4	1
Measles (Rubeola)	1	0	14	3	4

TABLE 3
COMMUNICABLE DISEASE REPORT BY GEOGRAPHIC AREAS
STATE OF HAWAII, 1986

Disease	State		TOTAL CASES a/						Military Active Duty
	Number	Rate b/	Hawaii	Oahu	Kauai	Lanai	Maui	Molokai	
Total	9,707	913.8	918	8,467	210	-	103	9	520
Amebiasis	10	0.9	-	8	-	-	2	-	-
Brucellosis	1	0.1	1	-	-	-	-	-	-
Chancroid	-	-	-	-	-	-	-	-	-
Chickenpox	1,386	130.5	64	1,143	129	-	48	2	8
Conjunctivitis, infec.	185	17.4	33	147	3	-	2	-	2
Diphtheria	-	-	-	-	-	-	-	-	-
Encephalitis, primary & post-infectious	3	0.3	-	3	-	-	-	-	-
Gonorrhea	1,619	152.4	66	1,537	9	-	6	1	417 c/
Hansen's disease d/	37	3.5	5	27	2	-	3	-	-
Hepatitis A	14	1.3	3	9	1	-	1	-	4
Hepatitis B	77	7.2	3	64	4	-	6	-	9
Hepatitis non-A, non-B	6	0.6	-	6	-	-	-	-	2
Hepatitis unspecified	4	0.4	-	3	-	-	1	-	2
Hookworm disease	-	-	-	-	-	-	-	-	-
Influenza	316	29.7	1	311	2	-	-	2	-
Leptospirosis	11	1.0	8	2	1	-	-	-	2
Lymphogranuloma venereum	-	-	-	-	-	-	-	-	-
Malaria (All imported)	1	0.1	-	1	-	-	-	-	-
Measles (Rubeola)	37	3.5	-	37	-	-	-	-	-
Meningitis, aseptic & viral	192	18.1	21	158	13	-	-	-	7
Meningitis, bacterial (All types) e/	34	3.2	-	32	1	-	-	1	-
Meningitis, meningo.	(3)	(0.3)	-	(3)	-	-	-	-	-
Meningitis, unspecified	-	-	-	-	-	-	-	-	-
Mononucleosis, infec.	38	3.6	10	25	-	-	3	-	6
Mumps	24	2.3	4	17	1	-	1	1	1
Pertussis	51	4.8	1	46	-	-	4	-	-
Poliomyelitis	-	-	-	-	-	-	-	-	-
Rubella	8	0.8	-	8	-	-	-	-	-
Rubella, congenital	-	-	-	-	-	-	-	-	-
Salmonellosis	428	40.3	27	356	26	-	18	1	-
Scarlet fever & other streptococcal infec.	4,892	460.5	645	4,235	10	-	2	-	55
Shigellosis	81	7.6	6	72	3	-	-	-	-
Syphilis, primary & sec.	38	3.6	-	36	-	-	2	-	4 c/
Syphilis, early latent	10	0.9	-	10	-	-	-	-	-
Syphilis, late & late latent	8	0.8	-	8	-	-	-	-	1 c/
Tetanus	-	-							
Trichinosis	7	0.6	7	-	-	-	-	-	-
Tuberculosis	180	16.9	13	159	4	-	4	-	-
Typhoid fever	8	0.8	-	7	1	-	-	-	-
Typhus fever, endemic	1	0.1	-	-	-	-	-	1	

a/ Resident cases (includes military on active duty)
b/ Number per 100,000 total population (1,062,300)
c/ Reported cases by military facilities
d/ New and transfer-in cases
e/ Includes meningitis, meningococcal

TABLE 4

SEXUALLY TRANSMITTED DISEASE CASES REPORTED TO THE DEPARTMENT OF HEALTH BY DIAGNOSIS AND SOURCE OF REPORT

STATE OF HAWAII, 1986

Type of Disease		Total	Private Physicians, Hospitals and Institutions	Public Clinics, Hospitals and Institutions	Military
Total Cases	Number	1,676	613	641	422
	Percent	100	37	38	25
Syphilis:					
Primary and Secondary		38	19	15	4
Early Latent		10	6	4	--
Late and Late Latent		8	5	2	1
Gonorrhea		1,619	582	620	417
Other Venereal Diseases		1	1	--	--

TABLE 5

TOTAL PRIMARY AND SECONDARY SYPHILIS CASES BY AGE

STATE OF HAWAII 1981 - 1986

Age in Years	1981	1982	1983	1984	1985	1986
Total All Ages	75	120	99	92	88	38
0 - 14	1	--	--	--	--	--
15 - 19	2	4	4	7	4	2
20 - 24	14	31	37	25	16	7
25 - 29	14	30	17	23	23	9
30 - 34	17	18	19	11	16	6
35 - 39	11	18	7	8	16	4
40 - 44	4	8	7	10	5	3
45 - 49	8	4	3	4	4	1
50 and Over	4	6	3	4	2	4
Unknown	--	1	2	--	2	2

TABLE 6

TOTAL GONORRHEA CASES BY AGE

STATE OF HAWAII 1981 - 1986

Age in Years	1981	1982	1983	1984	1985	1986
Total All Ages	4289	3706	2886	2664	2162	1619
0 - 14	7	13	9	12	6	8
15 - 19	548	472	359	337	377	272
20 - 24	1761	1441	1056	1032	842	606
25 - 29	892	808	649	586	419	339
30 - 34	508	448	351	288	198	176
35 - 39	208	186	143	162	109	83
40 - 44	103	102	64	66	52	39
45 - 49	51	37	37	23	13	11
50 and Over	54	47	37	41	26	11
Unknown	157	152	181	117	120	74

TABLE 7

NUMBER AND RATE PER 100,000 POPULATION OF TOTAL REPORTED GONORRHEA CASES

STATE OF HAWAII, 1970 - 1986

	15 - 19 YEARS			20 - 24 YEARS			25 - 29 YEARS			ALL AGES		
YEAR	CASES	POPULATION[1]	RATE	CASES	POPULATION[1]	RATE	CASES	POPULATION[1]	RATE	CASES	POPULATION[1]	RATE
1970	264	71,993	366.7	712	81,732	871.1	223	59,583	374.3	1,494	769,913	194.0
1971	383	75,600	506.6	888	87,900	1,010.2	326	62,500	521.6	1,975	801,000	246.6
1972	365	78,800	463.2	925	91,000	1,016.5	363	68,200	532.3	2,080	828,000	251.2
1973	482	81,500	591.4	987	94,000	1,050.0	488	72,200	675.9	2,408	851,000	283.0
1974	576	83,200	692.3	1,209	96,200	1,256.8	549	76,400	718.6	2,923	867,000	337.1
1975	649	84,700	766.2	1,279	98,800	1,294.5	646	81,000	797.5	3,126	884,000	353.6
1976	719	86,200	834.1	1,360	100,300	1,355.9	798	86,100	926.8	3,591	902,000	398.1
1977	733	86,400	848.4	1,633	101,800	1,604.1	940	87,400	1,075.5	4,256	916,000	464.6
1978	510	86,400	590.3	1,269	103,700	1,223.7	737	89,600	822.5	3,409	929,000	367.0
1979	711	86,900	818.2	1,714	105,200	1,629.3	908	92,700	979.5	4,373	950,000	460.3
1980	620	86,446	717.2	1,758	105,682	1,663.5	870	95,287	913.0	4,383	964,691	454.3
1981	548	87,900	623.4	1,761	107,500	1,638.1	892	96,900	920.5	4,289	980,900	437.3
1982	472	89,300	528.6	1,441	109,200	1,319.6	808	98,400	821.1	3,706	996,700	371.8
1983	359	91,700	391.5	1,056	112,100	942.0	649	101,100	641.9	2,886	1,023,200	282.1
1984	337	93,000	362.4	1,032	113,800	906.9	586	102,600	571.2	2,664	1,038,730	256.5
1985	377	94,400	399.4	842	115,500	729.0	419	104,100	402.5	2,162	1,053,900	205.1
1986	272	95,100	286.0	606	116,400	520.6	339	104,900	323.2	1,619	1,062,300	152.4

Population data is an estimated total resident population based on figures taken from the 1980 census, which includes Armed Forces and their dependents in Hawaii, and residents temporarily absent, and excludes visitors present.

1/ Data shown only for computational convenience and not intended to imply accuracy beyond three significant figures.

The reported rates of Gonorrhea by selected age groups in Hawaii, according to their numerical ranking order are: 1) 20 - 24 years; 2) 25 - 29 years; and 3) 15 - 19 years.

TABLE 8

HAWAII RESIDENT GONORRHEA (GC) MORBIDITY BY YEAR (1974 - 1986),
CASE RATE PER 100,000 POPULATION, BY SEX, AND RESISTANCE TO PENICILLIN

YEAR	POPULATION[a]	TOTAL GC	RATE GC	# FEMALE GC	# MALE GC	% MALE GC	TOTAL PPNG[b]
1974	867,000	2,923	337.1	1,176	1,747	60%	-
1975	884,000	3,126	353.6	1,209	1,917	61%	-
1976	902,000	3,591	398.1	1,285	2,306	64%	10
1977	916,000	4,256	464.6	1,533	2,723	64%	22
1978	929,000	3,409	367.0	1,164	2,245	66%	26
1979	950,000	4,373	460.3	1,400	2,973	68%	63
1980	964,691	4,383	454.3	1,381	3,002	68%	162
1981	980,900	4,289	437.3	1,259	3,030	71%	184
1982	996,700	3,706	371.8	1,157	2,549	69%	99
1983	1,023,200	2,886	282.1	1,014	1,872	65%	93
1984	1,038,730	2,664	256.5	920	1,744	65%	113
1985	1,053,900	2,162	205.1	872	1,290	60%	110
1986	1,062,300	1,619	152.4	684	935	58%	97

a/ Source: Hawaii State Department of Planning and Economic Development, "The Population of Hawaii, 1980: Final Census Results" Satistical Report 143, March 18, 1981.

b/ Abbreviation for Penicillinase-producing Neisseria gonorrhoeae the penicillin-resistant form of gonorrhea.

TABLE 9

HAWAII INFECTIOUS SYPHILIS MORBIDITY TREND
BY YEAR (1976 - 1986) AND SEX

YEAR	P & S[a]	EL[b]	TOTAL	# FEMALES	# MALES	% MALES
1976	99	58	157	22	135	86
1977	46	37	83	13	70	84
1978	51	34	85	11	74	87
1979	106	69	175	12	163	93
1980	131	74	205	7	198	97
1981	75	47	122	6	116	95
1982	120	66	186	9	177	95
1983	99	47	146	15	131	90
1984	92	54	146	28	118	81
1985	88	30	118	25	93	79
1986	38	10	48	10	38	79

a/ P & S - Primary and secondary stage of syphilis are the infectious stages of syphilis when the lesions are present.

b/ Early Latent stage of syphilis is an early stage of syphilis under one year's duration.

TABLE 10

HAWAII ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)
REPORTED BY YEAR, SEX, AND NUMBER OF KNOWN DEATHS
1983 - 1986

YEAR	TOTAL AIDS	# MALES	# FEMALES	KNOWN DEATHS
1983	10	9	1	9
1984	16	15	1	10
1985	36	35	1	18
1986	58	54	4	15
TOTAL	120	113	7	60

HANSEN'S DISEASE IN HAWAII
1986

Hawaii continues to have the highest incidence and prevalence rates for Hansen's disease within the United States.

However, in 1986 of the 37 people who were newly diagnosed with the disease, only three were Hawaii-born. Of the three Hawaii-born cases,two occurred in families with known Hansen's disease. The remaining 34 cases were foreign-born (Tables 6 and 9). Of these, 29 came from the Philippines, 4 from Samoa, and 1 from Cambodia. Most new cases reside on Oahu (Table 4).

Of the foreign-born, 10 had the onset of illness before coming to Hawaii and 24 developed symptoms here. Of the 24 cases with symptoms developing here, the median interval between onset and diagnosis was 6 months (Range: 0-61 months). Of the 37 new cases, 17 were paucibacillary (I,TT,BT) and 20 multibacillary (BB,BL,LL). Of these 20, 10 were borderline lepromatous (BL), 9 were lepromatous (LL), and 1 was mid-borderline (BB).

Table 5 shows the age distribution at time of registration in Hawaii. All age groups were affected but incidence peaked in the over 70 age group. The 70 and over age group also had the highest age-specific incidence. The median age of all new patients in 1986 was 44 years.

In addition, 6 cases were returned to registry (these being discharged cases who were reviewed and placed back on treatment and surveillance) and 44 cases were removed from registry. This is a reflection of the chronic nature of the disease and its tendency to relapse. There were 653 cases on the registry as of 12/31/86.

All newly diagnosed cases are now assigned to the Hansen's Disease Community Program. This program provides for treatment and follow-up of all patients (549) who are not on the Kalaupapa or Hale Mohalu registry. It provides a system of care through a network of services including private physicians, Public Health Nurses, and various community resources, with the program coordinating and monitoring the patient's care. The Program also provides certain direct patient care services through its Nurses, Social Workers, Paramedical Assistants and Physicians. Household contacts of known cases are also followed and periodically examined to provide for the earliest possible detection of the disease in this at-risk population.

For patients requiring more intensive care, Inpatient care is available at Hale Mohalu at Leahi, on Oahu. This includes patients such as those with severe reactions or complications and patients who developed disabilities prior to the availability of effective drug therapy. Also, 99 cases are still on the Kalaupapa registry and retain the privilege of residing at the Kalaupapa community and being admitted to the hospital there whenever necessary.

TABLE 1
TOTAL HANSEN'S DISEASE PATIENTS REGISTERED BY REGISTER STATUS AND YEAR
STATE OF HAWAII 1979-1986

Register Status	1979	1980	1981	1982	1983	1984	1985	1986
Total Cases on Register January 1	437	458	474	506	550	578	661	651
New cases added during the year	33	34	49	49	41	43	31	37
Formerly diagnosed cases returned to register	2	3	4	11	5	58	4	6
Other additions (registry correction)	-	-	-	-	-	3	7	1
Removed during year	14	21	21	16	18	21	52	42
Deaths	5	8	6	4	6	15	10	4
Left the State	1	4	1	12	12	5	39	6
Discharged from further surveillance	8	9	14	-	-	-	-	26
Other deductions (registry correction)	-	-	-	-	-	1	3	6
Total cases on register December 31	458	474	506	550	578	661	651	653

TABLE 2
HANSEN'S DISEASE PATIENTS, KALAUPAPA REGISTRY STATUS
STATE OF HAWAII 1979-1986

Register Status	1979	1980	1981	1982	1983	1984	1985	1986
Total patients-Kalaupapa Registry January 1	127	124	119	115	112	110	101	101
Deaths	1	5	4	3	2	8	0	2
Transfer from Registry	2	-	-	-	-	-	-	-
Transfer to Registry	-	-	-	-	-	-	-	-
Left the State	-	-	-	-	-	-	-	-
Other (Registry correction-deduction)	-	-	-	-	-	1	-	-
Total patients - Kalaupapa Registry - December 31	124	119	115	112	110	101	101	99
Reactivated cases (criteria: positive smears)	5	5	6	6	6	2	0	0

TABLE 3
TOTAL CASES OF HANSEN'S DISEASE REGISTERED BY TYPE, LOCATION AND YEAR
STATE OF HAWAII, 1979 - 1986

Type and Location	1979	1980	1981	1982	1983	1984	1985	1986
Total Cases on Registry 12/31	458	474	506	550	578	661	651	653
Medically Released	458	474	506	550	578	661	651	653
At Home	328	349	385	432	462	555	546	549
Kalaupapa	124	119	115	112	110	101	100	99
Hale Mohalu	6	6	6	6	6	5	5	5
Hospital Care								
Total Days	40,471	39,996	41,150	41,071	39,288	36,604	35,159	34,471
Kalaupapa	34,741	33,971	34,320	34,565	33,745	30,419	29,006	29,578
Hale Mohalu	5,730	6,025	6,830	6,506	5,543	6,185	5,962	4,688
Other Hospitals	---	---	---	---	---	---	191	205
Total Contacts December 31	1,110	1,400	1,600	1,600	2,000	1,850	2,104	2,115

TABLE 4
NEW CASES OF HANSEN'S DISEASE BY ISLAND OF RESIDENCE AND YEAR
STATE OF HAWAII, 1979-1986

	1979	1980	1981	1982	1983	1984	1985	1986	TOTAL (%)
ALL ISLANDS	33	34	49	49	41	43	31	37	317 (100)
OAHU	25	24	35	40	37	33	28	28	250 (78.9)
HAWAII	2	2	6	7	3	1	2	5	28 (8.8)
MAUI	1	4	6	1	-	3	-	2	17 (5.4)
KAUAI	5	4	2	1	1	4	-	2	19 (6.0)
MOLOKAI	-	-	-	-	-	1	1	-	2 (0.6)
LANAI	-	-	-	-	-	1	-	-	1 (0.3)

TABLE 5
NEW CASES OF HANSEN'S DISEASE BY AGE GROUP AND YEAR
STATE OF HAWAII, 1979 - 1986

Age in Years	1979	1980	1981	1982	1983	1984	1985	1986	TOTAL
ALL AGES	33	34	49	49	41	43	31	37	317
0-9	1	-	1	1	-	-	-	1	4
10-19	9	5	6	12	2	5	6	5	50
20-29	5	9	11	10	9	6	5	7	62
30-39	2	7	4	8	1	7	2	4	35
40-49	6	2	5	4	9	1	8	5	40
50-59	7	2	10	4	8	7	5	5	48
60-69	3	6	7	5	6	12	2	2	43
70- and over	-	3	5	5	6	5	3	8	35

Overall median age = 42 yrs.

FIGURE 1

NEW CASES OF HANSEN'S DISEASE BY AGE GROUP

STATE OF HAWAII, 1986

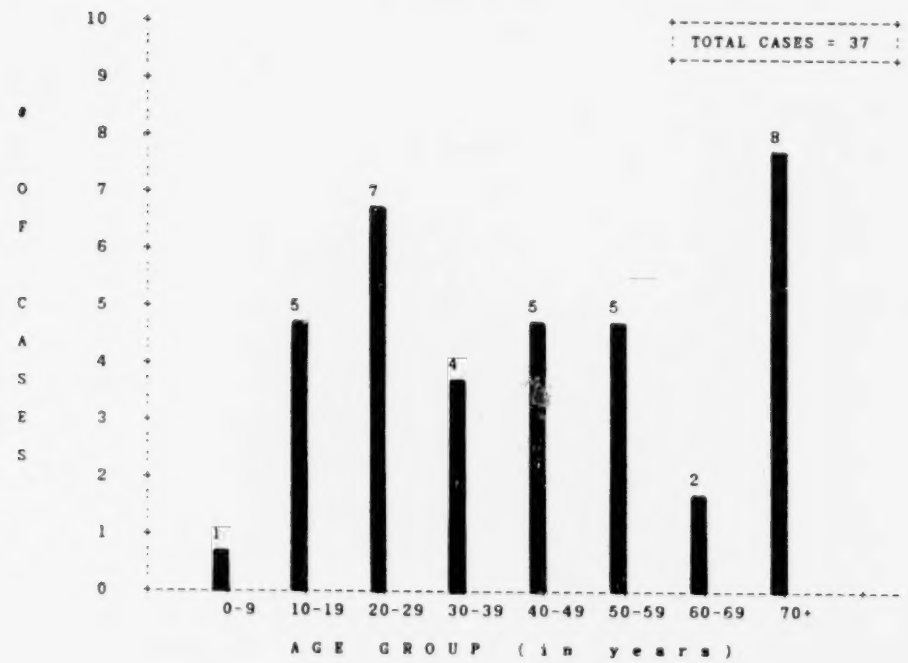


TABLE 6
NEW CASES OF HANSEN'S DISEASE BY PLACE OF BIRTH AND YEAR OF REGISTRATION
STATE OF HAWAII, 1979-1986

	TOTAL	%	1979	1980	1981	1982	1983	1984	1985	1986
HAWAII	25	(7.9)	-	3	9	2	4	2	2	3
SAMOA	41	(12.9)	5	5	6	5	8	5	3	4
MICRONESIA	9	(2.8)	-	-	1	4	2	2	-	-
OTHER PACIFIC ISLANDS	5	(1.6)	-	1d/	-	1a/	-	-	a/ 3d/d/	-
PHILIPPINES	214	(67.5)	24	23	33	35	21	29	20	29
VIETNAM	4	(1.3)	2	-	-	1	-	-	1	-
U.S. MAINLAND	8	(2.5)	1	2	-	-	2	3	-	-
OTHER	11	(3.5)	1c/	-	-	1e/	4e/ f/g/h/	2i/ k/	2h/ j/	1b/
ALL	317	(100)	33	34	49	49	41	43	31	37

a/Tonga
b/Cambodia
c/Canada
d/Marshall Islands
e/India
f/Laos
g/Portugal
h/China
i/Japan
j/Australia
k/not available

TABLE 7
INCIDENCE OF HANSEN'S DISEASE BY ISLAND OF RESIDENCE, 1986

ISLAND	1980 POPULATION*	# OF CASES	RATE PER 100,000
ALL ISLANDS	964,691	37	3.8
OAHU	762,534	28	3.7
HAWAII	92,053	5	5.4
MAUI	62,823	2	3.2
KAUAI	38,856	2	5.1
MOLOKAI	6,049	-	-
LANAI	2,119	-	-

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1985, (November 1985), table 5.

TABLE 8
AGE-SPECIFIC INCIDENCE OF HANSEN'S DISEASE IN HAWAII, 1986

AGE GROUP	NO. OF CASES	POPULATION*	RATE PER 100,000
0-9	1	150,905	.7
10-19	5	161,316	3.1
20-29	7	200,969	3.5
30-39	4	148,262	2.7
40-49	5	92,708	5.4
50-59	5	96,587	5.2
60-69	2	66,947	3.0
70+	8	46,997	17.0
ALL	37	964,691	3.8

*Source: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1985, (November 1985), table 18.

FIGURE 2
AGE-SPECIFIC INCIDENCE RATE OF HANSEN'S DISEASE
IN HAWAII, 1986

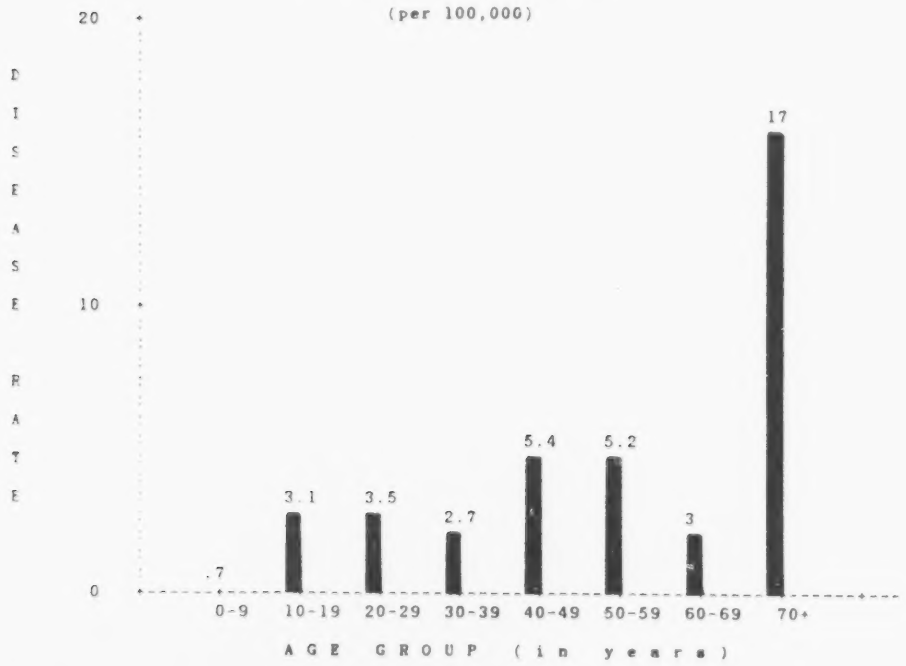


TABLE 9
INCIDENCE OF HANSEN'S DISEASE IN HAWAII, HAWAII-BORN VERSUS FOREIGN-BORN, 1986

	NO OF CASES	POPULATION*	RATE PER 100,000
AII-BORN	3	557,990	0.5
EIGN-BORN	34	137,016	24.8
ER U.S.	-	269,685	-
GROUPS	37	964,691	3.8

rce: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1985, (November 1985), table 29.

TABLE 10
EW CASES OF HANSEN'S DISEASE BY PLACE OF RESIDENCE AT ONSET OF SYMPTOMS STATE OF HAWAII, 1986

DENCE	NO. OF CASES	
II	27	
ER U.S.	-	
IPPINES	8	
A	2	
L	37	

TABLE 11
SEX-SPECIFIC INCIDENCE OF HANSEN'S DISEASE IN HAWAII, 1986

	NO. OF CASES	POPULATION*	RATE PER 100,000
S	27	494,683	5.5
LES	10	470,008	2.1
	37	964,691	3.8

rce: Hawaii State Department of Planning and Economic Development, The State of Hawaii Data Book 1985, (November 1985), table 18.

ANNUAL SUMMARY 1986

There were 179 new cases of tuberculosis in 1986, a decrease of 5.3% from the 189 cases reported the previous year. The foreign born population continues to suffer the highest incidence and to account for more than 75% of all new cases. In 1986, however, more cases were detected in those immigrants who had been in the State for more than five years than in those who had been here for less than one year. Consistent with immigration patterns and with the experience of recent years, over half of all new cases were in individuals of Filipino extraction. The next largest ethnic group was Chinese, followed by Japanese and Korean. Cases in Japanese were primarily in elderly individuals who had immigrated many years ago.

The incidence rate for the State was 16.9 per 100,000 as compared to 17.9 per 100,000 in 1985. The national rate is estimated to be approximately 9.2 per 100,000 though official statistics have not been released. The incidence was 92.2 per 100,000 for the foreign-born population, while that for the U.S.-born population was 4.4 per 100,000 (4.7 per 100,000 for those born in Hawaii, 3.6 per 100,000 for those born on the mainland).

Fourteen percent of the cases were extrapulmonary; this percentage is similar to that of previous years. There was only one case of miliary tuberculosis (as compared to 4 cases the previous year) and there were no cases of meningeal tuberculosis while 4 cases were reported in 1985. These data suggest that there had been no effect of the Acquired Immunodeficiency Syndrome (AIDS) on tuberculosis morbidity in the State through 1986. In addition, the rarity of miliary and meningeal disease is consistent with the observed lack of occurrence of cases of tuberculosis in young children who are at high risk of developing these severe complications of tuberculosis. While six cases of tuberculosis occurred in children younger than ten years of age in 1985, there were no cases in this age group in 1986. This indicates a low level of transmission of disease within the State and/or effective programs of early detection of infection and prevention of disease.

The Branch continues to provide comprehensive services in terms of case detection and treatment, preventive therapy, and monitoring the occurrence of tuberculosis. Over 50,000 tuberculin skin tests were administered by personnel of the Tuberculosis Branch and the Public Health Nursing Branch. The Tuberculosis Branch took nearly 30,000 chest X-rays. There was a 20% decrease in the total number of chest X-rays taken and a 28% decrease in the number of screening X-rays as compared to 1985. This reflects the new policy of initial skin test screening for all clients. In addition, all X-rays are now full sized films as miniature films have been eliminated from the program. 41.3% of the cases in 1986 were reported by the Department of Health and 35.8% were detected through one of our screening programs.

While there are many unknowns regarding the future of tuberculosis incidence in terms of AIDS, federal immigration policies, and the Immigration Reform and Control Act of 1986, the Tuberculosis Control Program remains effective and ready to monitor and respond to any changes.

TABLE 1

X-RAY SURVEY ACTIVITIES FOR TUBERCULOSIS BY COUNTY
STATE OF HAWAII, 1986

Geographic Area	Total Screening Films Taken	X-Rays Consistent With Current or Past Tuberculosis Infection					
		Total		Tuberculosis Diagnosed Current Disease		Tuberculosis Not Confirmed	
		Number	Rate*	Number	Rate*	Number	Rate*
State of Hawaii.....	19,194	192	10.0	7	.4	185	9.6
County of Honolulu.....	17,851	192	10.8	7	.4	185	10.4
Mobile Units.....	371	2	5.4	-	-	2	5.4
Lanakila Health Center.....	17,480	190	10.9	7	.4	183	10.5
Routine Survey.....	9,253	56	6.1	5	.5	51	5.5
Medical Referrals.....	639	12	18.8	1	1.6	11	17.2
Other Agency Referrals.....	6,477	103	15.9	-	-	103	15.9
Tuberculin Testing Program - PHN.....	883	8	9.1	1	1.1	7	7.9
Extensions of Stay of Non-Immigrant Visas.....	6	-	-	-	-	-	-
LOPD Discharge Cases.....	33	-	-	-	-	-	-
Correctional Facility.....	189	4	21.2	-	-	4	21.2
County of Hawaii.....	1,343	10	7.4	-	-	10	7.4

*Per 1,000 Survey Films

TABLE 2

TUBERCULOSIS CASES REPORTED BY GEOGRAPHIC AREA OF RESIDENCE
STATE OF HAWAII, 1986

Geographic Area of Residence	TUBERCULOSIS CASES REPORTED					
	1986		1985			
	Number	Rate a/	Number	Rate a/	Pop. 7/1/86	
State of Hawaii	179	16.9	189	17.9	1,062,300	
County of Honolulu	158	19.2	163	20.0	821,200	77.9%
City of Honolulu	97	25.2	100	25.6	385,100	46.9%
Rest of Oahu	61	14.0	63	14.9	436,100	
County of Hawaii	13	11.8	8	7.3	110,500	10.4%
County of Maui b/	4	4.7	9	10.7	86,000	8.1%
County of Kauai	4	9.0	9	19.9	44,600	4.2%

a/ Per 100,000 total population

b/ Includes Kalawao County

TABLE 3

TUBERCULOSIS CASES BY PLACE OF BIRTH AND LENGTH OF RESIDENCE
AND NUMBER OF PERSONS ADMITTED TO HAWAII WITH PERMANENT VISAS
STATE OF HAWAII, 1986

Birthplace or Time in Hawaii	1986			1985				
	Number	Percent	Rate a/	Number	Percent	Rate a/	Pop. 7/1/86	
Total	179	100.0	16.9	189	100.0	17.9		1,062,300
Foreign Born	139	77.7	92.2	147	77.8	98.2	14.2%	150,800
1 year or less	58	32.4	-	73	38.6	-		
Over 1 year - 2 years	9	5.0	-	4	2.1	-		
Over 2 years - 5 years	11	6.1	-	20	10.6	-		
Over 5 years	61	34.1	-	50	26.5	-		
Unknown time in State	-	-	-	-	-	-		
Mainland Born	10	5.6	3.6	10	5.3	4.3	25.8%	274,100
Hawaii Born	30	16.8	4.7	32	16.9	4.9	60%	637,400
Birthplace Unknown	-	-	-	-	-	-		
U.S. Born Rate (Hawaii + Mainland)	40	22.3	4.4	42	22.2	4.7		911,500
U.S. National Average Rate	-	-	-	-	-	9.4		
Number of Persons Admitted to Hawaii With Permanent Visas c/	5,557	-	-	5,569	-	-		

a/ Rate - Cases per 100,000 total civilian population; rate for foreign-born, mainland-born, and Hawaii-born are estimates.
b/ Foreign-born includes people coming to Hawaii from both American and Western Samoa.
c/ Persons admitted to Hawaii with permanent visas include only individuals whose port of entry is Honolulu.

TABLE 4

TUBERCULOSIS CASES BY LOCATION OF DISEASE
AND COUNTY OF RESIDENCE, STATE OF HAWAII, 1986

Location of Disease	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	179	100.0	158	100.0	13	100.0	4	100.0	4	100.0
Pulmonary	154	86.0	138	87.3	9	69.2	4	100.0	3	75.0
Extrapulmonary	25	14.0	20	12.7	4	30.8	-	-	1	25.0
Pleural	3	1.7	2	1.3	-	-	-	-	1	25.0
Lymphatic	8	4.5	8	5.1	-	-	-	-	-	-
Cervical	7	3.9	7	4.4	-	-	-	-	-	-
Intrathoracic	-	-	-	-	-	-	-	-	-	-
Other Lymphatic	1	.6	1	.6	-	-	-	-	-	-
Urknown	-	-	-	-	-	-	-	-	-	-
Bone and/or Joint	6	3.4	4	2.5	2	15.4	-	-	-	-
Genitourinary	6	3.4	5	3.2	1	7.7	-	-	-	-
Miliary	1	.6	1	.6	-	-	-	-	-	-
Meningeal	-	-	-	-	-	-	-	-	-	-
Peritoneal	-	-	-	-	-	-	-	-	-	-
Other	1	.6	-	-	1	7.7	-	-	-	-
Site Not Stated	-	-	-	-	-	-	-	-	-	-

*Includes Kalawao County

TABLE 5

TUBERCULOSIS CASES BY SOURCE OF REPORT AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1986

Source of Report	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	179	100.0	158	100.0	13	100.0	4	100.0	4	100.0
Health Department	72	40.2	64	40.5	4	30.8	3	75.0	1	25.0
Private Physician	77	43.0	64	40.5	9	69.2	1	25.0	3	75.0
Tuberculosis Hospital or OPD	2	1.1	2	1.3	-	-	-	-	-	-
General Hospital or OPD	16	8.9	16	10.1	-	-	-	-	-	-
Tripler Army Hospital or VA	11	6.1	11	7.0	-	-	-	-	-	-
Death Certificate	-	-	-	-	-	-	-	-	-	-
Other - Barber's Point	1	.6	1	.6	-	-	-	-	-	-

*Includes Kalawao County

TABLE 6

TUBERCULOSIS CASES BY REASON FOR EXAMINATION AND COUNTY OF RESIDENCE
STATE OF HAWAII, 1986

Reasons for Examination	State of Hawaii		COUNTY OF RESIDENCE							
			Honolulu		Hawaii		Maui*		Kauai	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	179	100.0	158	100.0	13	100.0	4	100.0	4	100.0
Health Department Survey	18	10.1	18	11.4	-	-	-	-	-	-
Contact & Source Investigation	1	.6	-	-	-	-	1	25.0	-	-
Chest Clinic Follow-up	3	1.7	3	1.9	-	-	-	-	-	-
Positive Reactor or Converter	5	2.8	4	2.5	-	-	-	-	1	25.0
Extension of Stay, Non-Immigrant Visa	-	-	-	-	-	-	-	-	-	-
Aliens with Waiver of Excludability for Tuberculosis	23	12.8	22	13.9	-	-	1	25.0	-	-
Aliens with Tuberculosis Not Considered Active	19	10.6	16	10.1	2	15.4	1	25.0	-	-
Review of Other Visa Films & Evaluation of Foreign-born	3	1.7	3	1.9	-	-	-	-	-	-
Symptoms or Illness	88	49.2	75	47.5	10	76.9	-	-	3	75.0
General Hospital & PMD X-ray Findings	11	6.1	11	7.0	-	-	-	-	-	-
Death Certificate	2	1.1	1	.6	1	7.7	-	-	-	-
Other	6	3.4	5	3.2	-	-	1	25.0	-	-
Unknown	-	-	-	-	-	-	-	-	-	-

*Includes Kalawao County

TABLE 7

TUBERCULOSIS CASES BY AGE, RACE, AND SEX
STATE OF HAWAII, 1986

Age Group	ALL RACES			Caucasian		Hawaiian and part Hawaiian		Chinese		Filipino		Japanese		Korean		South East Asia[a/]		Others[b/]	
	Total	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Total	179	104	75	13	-	2	1	15	9	53	41	8	8	4	11	5	-	4	5
0 - 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5 - 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10 - 19	6	2	4	-	-	-	-	-	-	1	4	-	-	-	-	1	-	-	-
20 - 29	20	6	14	-	-	-	-	1	1	4	8	-	-	-	4	-	-	1	1
30 - 39	23	13	10	4	-	-	-	2	1	6	4	-	1	-	2	-	-	1	2
40 - 49	15	8	7	3	-	-	-	-	-	4	3	-	-	1	3	-	-	-	1
50 - 59	37	18	19	2	-	2	-	4	5	7	13	-	1	1	-	2	-	-	-
60 - 69	38	26	12	1	-	-	-	2	1	17	6	3	4	1	1	2	-	-	-
70 and over	40	31	9	3	-	-	1	6	1	14	3	5	2	1	1	-	-	2	1

a/ Vietnamese, Cambodian, Laotian
b/Others: Samoan - 6, Burmese - 1, Tongan - 1, and Black - 1.

TABLE 8

REACTIVATIONS REPORTED BY BACTERIOLOGY AND NUMBER OF REACTIVATIONS
BY COUNTY, STATE OF HAWAII, 1986

County	Total	Bacteriology			Number of Reactivations		
		Positive	Negative	Unknown	1	2	*3
Total	7	6	1	-	4	2	1
Honolulu	7	6	1	-	4	2	1
Hawaii	-	-	-	-	-	-	-
Maui*	-	-	-	-	-	-	-
Kauai	-	-	-	-	-	-	-

*Includes Kalawao County

TABLE 9

REACTIVATIONS REPORTED BY AGE, SEX, AND COUNTY
STATE OF HAWAII, 1986

Age Group	State of Hawaii			Honolulu		Hawaii		Maui*		Kauai	
	Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Total	7	5	2	5	2	-	-	-	-	-	-
Under 5	-	-	-	-	-	-	-	-	-	-	-
5 - 14	-	-	-	-	-	-	-	-	-	-	-
15 - 24	-	-	-	-	-	-	-	-	-	-	-
25 - 44	2	1	1	1	1	-	-	-	-	-	-
45 - 64	-	-	-	-	-	-	-	-	-	-	-
65 and Over	5	4	1	4	1	-	-	-	-	-	-

*Includes Kalawao County

TABLE 10

NUMBER OF TUBERCULOSIS DEATHS, AND NEW CASES REPORTED BY YEAR
STATE OF HAWAII, 1930, 1940, 1950, 1960, 1970, 1980, THROUGH 1986

Year	Deaths	New Cases Reported[a/]	Tuberculosis Cases b/
1930	379	1,060	1,060
1940	257	717	717
1950	114	743	339
1960	13	462	293
1970	13	733	270
1980	5	810	167
1981	4	885	197
1982	2	903	252
1983	2	768	236
1984	4	826	218
1985	4	714	189
1986	3	838	179

a/ Cases reported with current disease, suspects and past disease.
b/ Cases reported with current disease.

DENTAL HEALTH DIVISION

DENTAL HEALTH DIVISION
DEPARTMENT OF HEALTH ANNUAL REPORT
1986
SUMMARY

The Dental Health Division is responsible for the conducting of public health programs for the prevention and control of dental diseases. Periodic surveys and studies of dental diseases among school age children and certain adult populations such as immigrants, disabled members of the public and the needy population are done for future planning and program evaluation. Community programs aimed at preventing tooth decay and gum disease and treating oral disease that exist among groups of needy people are conducted.

Direct patient treatment services are provided to institutionalized and other qualified needed persons in the Hospital Dentistry and Community Services Program. In the (1985-86) fiscal year, four full-time clinical dentists were employed in the program. A total of 2,142 patients were treated at Waimano Training School and Hospital, Hawaii State Hospital, Maluhia Hospital, Leahi Hospital, ten community-based clinics and nine neighbor island long-term care facilities. Nineteen percent of the patients who were treated were seen until all dental treatment needs were completed. The number of patients treated this year decreased by nineteen percent due to the resignation of one of the five dentists to enter private practice. The vacant position was filled at the end of the reporting year.

Delivery of topical fluoride applications to school children remained as the program's top priority in the area of disease prevention. A total of 66,163 children statewide received the applications during the 12-month period. This number represents 2% or 1,309 children less than Fiscal Year 1984-1985. The decrease was due to the resignation of the Kauai dental hygienist halfway through the fiscal year.

In January 1985, the program's only permanent dental hygienist position which serves the Kona area was deleted by legislative action. A temporary position was established in Kona from November 1985 to April 1986 to allow an interested dental hygienist to provide dental hygiene services to the Kona school children.

Recruitment efforts to fill critical dental hygienist vacancies on the neighbor islands were accelerated in January 1986 and included the mailing of letters to 188 dental hygiene schools on the mainland. A satisfactory number of responses were received and by late 1986, two hygienists were hired to work on Kauai and Maui.

The majority of the 3,800 additional children provided dental health education this year were in the lower elementary grade levels. Dental hygienists from Honolulu traveled to Molokai and Lanai to provide preventive dental hygiene services.

Two hygienists spent a total of 15 workdays to serve the children in grades 2, 5, and 8. The younger dental hygienists in Honolulu have begun to rally to the aid of the program by volunteering for work trips to the neighbor islands.

The percentage of children completing and receiving treatment increased significantly for the Honolulu, Central and Windward Districts of Oahu. In contrast, a slight decrease occurred in the Leeward District of Oahu as well as on Molokai, Lanai and Hawaii.

Dental health education was provided to 16,249 students through classroom lectures and assemblies. Chairside dental health instructions were also provided to the 66,163 school children while they were receiving topical fluoride applications.

During the month of May 1985 on-site conferences were held with the administrators of 4 private, Catholic schools on Kauai to explore the feasibility of implementing a Self-Applied Fluoride Mouth Rinsing program in their schools. Workshops and conferences were held with teachers on the "Fluoride Rinse Program". All 4 schools decided to participate. The children who participated in the program rinsed their mouths with a 0.2% sodium fluoride solution for one minute once a week in their classrooms. Classroom teachers supervised the process. This procedure is expected to result in a 25-30% reduction in tooth decay. When the school year began, in-service workshops were conducted with faculty and parent/teacher groups. The first classroom rinses started in October with supplies sent by the Dental Health Division. As of May 1, 1987, a total of 444 children were participating in the rinse program. Of this number 61 were from Immaculate Conception School, 175 were from St. Catherine, 106 from Holy Cross and 102 participants were enrolled in St. Theresa. All faculty reports were positive and the outlook for continuation of the program very encouraging.

TABLE 1

SUMMARY OF DENTAL HEALTH SERVICES

STATE OF HAWAII, FISCAL YEAR 1985 - 1986

Type of Services	Number Served
Prevention and Detection	
Number of School Children Given Topical Fluoride Applications	66,163
Number of School Children Referred to Private Dentists	90,903
Number of School Children Given Dental Health Education	16,249
Treatment	
Number of Persons Treated in Institutions	429
Number of Persons Treated in Community-centered Facilities	1,307
Number of Persons Treated in County/State Hospitals	406

TABLE 2

DISTRIBUTION OF DENTAL HYGIENE SERVICES BY COUNTIES
STATE OF HAWAII, FISCAL YEAR 1985-1986

Year and County	Number of Schools Served		Number of Children Served		
	Public	Private	Number of Dental Inspections and Follow-up	Number of Fluoride Applications	Dental Health Education
1984-1985 ..... STATE	196	152	128,319	67,472	78,576
1985-1986 ..... STATE	186	132	131,744	66,163	82,412
OAHU	153	126	117,344	57,771	73,721
HAWAII	27	6	13,178	8,156	8,455
KAUAI ..(position.vacant).	-	-	-	-	-
MAUI-MOLOKAI-LANAI	6	-	1,222	236	236

TABLE 3

DENTAL TREATMENT STATUS OF CHILDREN IN 181 BY AREAS
STATE OF HAWAII, 1985-1986

Area	Number of Schools Reported	Enrollment	Number of Children in Grades Kindergarten - 12th			Percent Completed and Receiving Treatment
			Completed Treatment	Receiving Treatment	No Treatment During School Year	
STATE..... 1984-1985	181	123,803	5,369	42,303	76,131	38.5
STATE..... 1985-1986	169	115,223	3,945	42,225	69,053	40.1
HONOLULU CITY.....	52	32,322	1,771	13,829	16,722	48.3
RURAL OAHU.....	87	68,404	1,588	24,448	42,368	38.1
Central Oahu.....	32	26,326	613	9,835	15,878	39.7
Leeward Oahu.....	29	24,161	538	7,621	16,002	33.8
Windward Oahu.....	26	17,917	437	6,992	10,488	41.5
HAWAII.....	24	12,677	570	3,137	8,970	29.2
KAUAI.....	-	-	-	-	-	-
MAUI.....	6	1,820	16	811	993	45.4

TABLE 4

TREATMENT DATA

HOSPITAL DENTISTRY & COMMUNITY SERVICES BRANCH

STATE OF HAWAII, F.Y. 1985-1986

CLINICS	PATIENTS				SELECTED PROCEDURES							
	No. of New Patients	Adults	Minors	NO. COMPLETED TREATMENT	Examinations	Radiographs	Prophylaxis	Topical Fluoride Appl.	Fillings	Extractions	Crowns	Dentures
TOTAL	2,142	1,728	414	1,949	4,152	4,758	1,650	240	3,096	897	39	78
Institutional	429	449	8	585	2,061	765	582	-	387	174	9	-
Community-Centered	1,307	847	385	1,013	1,548	3,885	888	237	2,643	639	30	78
County/State Hospitals	406	432	21	351	543	108	180	3	66	84	-	-

ENVIRONMENTAL PROTECTION
AND
HEALTH SERVICES DIVISION

SUMMARY

The Pollution Investigation and Enforcement Branch of the Environmental Protection and Health Services Division is responsible for preserving and improving the quality of the environment throughout the State. Monitoring and enforcement programs are the principle vehicles through which pollution control rules are implemented in the fields of air; water, including all non-potable coastal and fresh waters; and solid waste.

The branch is involved in the following activities:

1. Determination of violations and enforcement of pollution control rules.
2. Monitoring of ambient conditions with air and water quality standards as control measures.
3. Inspection of conditions and operating procedures at landfills and sewer treatment plants.
4. Investigation of complaints by the public and conducting special studies in critical areas of environmental concern.

TABLE 1
SUMMARY OF AIR QUALITY DATA
STATE OF HAWAII, 1986
(24-Hour Sampling)

Sampling Stations	Micrograms Per Cubic Meter (ug/m^3)							
	Total Suspended Particulates				Sulfur Dioxide			
	No. of Samples	Annual Minimum	Annual Maximum	Arith. Average	No. of Samples	Annual Minimum	Annual Maximum	Arith. Average
Barbers Point - Oahu a/	52	7	66	26	57	<5	10	<5
Downtown, Honolulu - Oahu	57	11	61	25	57	<5	6	<5
Pearl City - Oahu	60	17	65	30	...	...	...	...
Liliha - Oahu	61	17	60	32	...	...	...	...
WaimenaTo - Oahu	59	10	72	28	...	...	...	...
Kihei - Maui b/	11	32	167	61	...	...	...	...
Kona - Hawaii c/	40	4	28	16	40	<5	12	<5
Lihue - Kauai a/	52	11	42	20	...	...	...	...

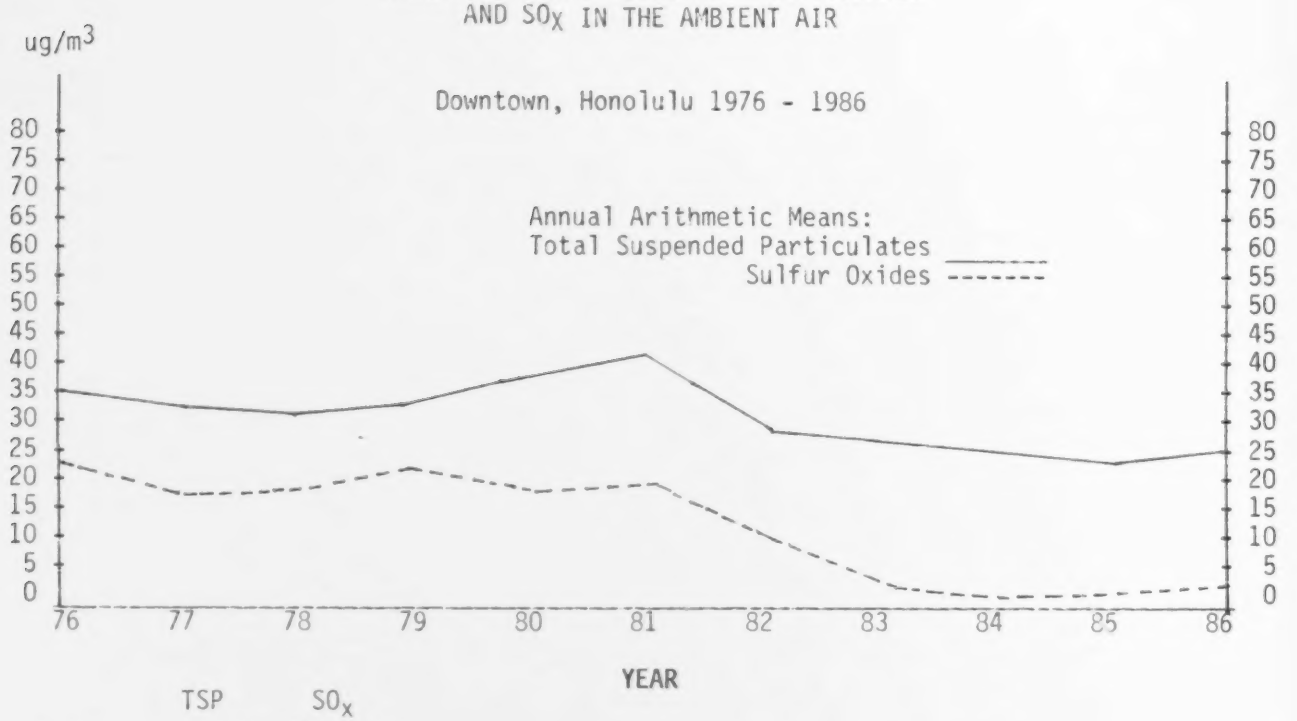
a/ Particulate data from PM_{10} samplers (measuring inhalable particulates of less than 10μ).

b/ Site re-established in September, 1986. Data based on 4 months of sampling.

c/ Site discontinued in September, 1986. Data based on 8 months of sampling.

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

FIGURE 1
TRENDS OF TOTAL SUSPENDED PARTICULATES
AND SO_X IN THE AMBIENT AIR



Date	TSP ug/m3	SO_X ug/m3
1975	40	9
1976	34	23
1977	31	17
1978	29	18
1979	32	22
1980	37	18
1981	40	19
1982	29	11
1983	26	2.7
1984	25	2.3
1985	24	2.5
1986	25	2.6

Sampling is conducted approximately 46 ft. above ground on the roof of the State Health Department building, 1250 Punchbowl Street, Honolulu, Hawaii.

Primary and secondary National Ambient air quality standards have been promulgated by the federal government. Primary standards are designed to prevent adverse effects on public health, while secondary standards are designed to prevent adverse effects on public welfare, including the values, and soiling and deterioration of materials. The standards for total suspended particulates (TSP) and sulfur oxides (SO_X) for the annual mean values are as follows:

	TSP(ug/m3)	SO_X(ug/m3)
Primary standard	75	80
Secondary standard	60	

TABLE 2
WATER QUALITY ON PUBLIC BEACHES: 1986

Beaches	Number of Samples	*Fecal Coliform Density Geometric Means (MPN/100 ml)
Oahu:		
Ala Moana Park (Ewa)	20	3.6
Ala Moana Park (Center)	11	2.5
Ala Moana Park (Diamond Head)	11	3.8
Elks Club Beach	9	2.3
Ewa Beach	7	5.7
Ft. DeRussy Beach	9	4.6
Gray's Beach	17	6.2
Hanauma Bay	9	5.4
Kahana Park Beach	9	23.1
Kahanamoku Beach	10	3.2
Kahanamoku Lagoon (Diamond Head)	17	12.1
Kailua Bay Outfall Shoreline	9	2.3
Kailua Beach Park	9	3.9
Kokokahi Pier	9	40.6
Kuhio Beach	9	7.8
Public Bath Beach	17	4.0
Tavern Beach	9	4.6
Sand Island Pt. #3	10	2.1
Kauai:		
Brennecke Beach	2	2.0
Hanalei Bay Landing	3	76.9
Poipu Beach	2	2.0
Hawaii: (Hilo)		
Exit of Ice Pond	10	15.1
Leileiwi Beach Park	9	116.0
Onekahakaha	9	7.4
Puhi Bay #3	11	48.8
Hawaii: (Kona)		
Hapuna Beach	7	3.6
Kahaluu Beach	7	2.8
Kealakekua Bay (off curio stand)	8	3.9
Kealakekua Bay (off canoe landing)	8	4.7
Magic Sands Beach	7	2.3
Puako Beach Lots (middle)	7	4.5
Puako Beach Lots (far end)	7	14.1
Spencer Beach Park	7	7.6
Maui:		
Hukilau Hotel Shoreline	7	3.7

*The geometric mean standard for fecal coliform density is 200 per 100 ml.

Source: Hawaii State Department of Health,
Pollution Investigation and Enforcement Branch, records

CONSTRUCTION GRANTS PROGRAM

The major function of the Wastewater Treatment Works Construction Grants Branch is to administer the Construction Grants Program for public wastewater treatment works pursuant to P.L. 92-500. Under the said program, 75 or 55 percent of the cost of constructing public treatment facilities are financed with federal funds. The State and Counties pay the remaining balance in a 40 and 60 percent ratio respectively. A total of $34,091,749 of federal funds were awarded to wastewater treatment works projects in Hawaii during 1986. The major objectives of the construction of public wastewater treatment works are to abate the pollution of the State's waters and to eliminate public health hazards caused by inadequate sewage disposal systems.

The administering of the program includes review of grant applications, facilities plans, environmental impact statements, infiltration-inflow analysis, construction plans and specifications, payment requests, construction activities contracts and other technical documents. A project is broken down into three (3) steps which include Step 1 (development of a facilities plan), Step 2 (development of construction plans and specifictions) and Step 3 (construction).

The following statistics indicate federal grants awarded to various projects (Table 1) and projects which have been completed during the year 1986 (Table 2):

TABLE 1

GRANTS AWARDED FOR:	PROJECT STEP	FEDERAL GRANT AMOUNT
Kailua Road Interceptor Sewer	3	$ 743,302
Maunawili SPS and FM	3	2,134,000
Kukanono SPS and FM	3	1,625,772
Waimanalo Collector Sewers Section 4 and 5	3	814,972
Sewer Tunnel Relief, Inc. 2	3	15,387,729
Sewer Tunnel Relief, Inc. 3	3	4,912,818
Kuakini Interceptor Sewer, Part C	3	4,355,000
205(j) Water Quality Management		189,480
205(g) Construction Grants Mgmt.		757,920
Grant Increase Awarded for:		
Kahaluu SPS and FM	3	454,759
Wailuku/Kahului WTP	3	84,753
Paia SS Pt. A & B CO's	3	231,593
Nanakuli SPS & FM	3	62,125
Makapuu IS, Section 1	3	299,507
Kahala SPS & FM	3	832,676
Ahuimanu SPS	3	350,858
Honouliuli WWTP, Unit 1, Inc. 3	3	196,284
Pearl City FM, Section 2	3	5,122
Wailua-Haleiwa FP & EIS	1	176,350
Ahuimanu SPS	3	20,912
Kailua Road IS	3	135,684
Waimanalo Res. Lots Sec. 4 & 5	3	123,787
Kaunakakai WWTP Expansion	3	34,589
Central Lab Maintenance Facility	3	48,788
Kahaluu WPS & FM	3	24,965
Waianae STP Mod. & Outfall Extension	3	30,036
Paia SPS & FM	3	57,968
TOTAL		**$34,091,749**

TABLE 2

COMPLETED PROJECTS	PROJECT STEP	FEDERAL GRANT AMOUNT
Kahala Sewage Pump Station	3	$ 2,301,165
Manoa-Kaimuki IS	3	471,992
Paia Sewage PS & FM, Part "B"	3	1,824,459
Waianae Outfall	3	2,766,307
Nanakuli CS, Section 1	3	679,088
Lahaina WWTP, Solids Handling	3	2,552,666
Napili-Honokowai IS	3	6,145,333
Ice Pond Collector Sewer	3	342,544
Makapuu Interceptor Sewer	3	696,405
Ahuimanu Sewage Pump Station	3	5,327,498
Makaha CS, Section 2	3	506,296
Kuakini IS, Part "A"	3	1,007,198
Papaikou IS, Part "B"	3	1,093,500
TOTAL		$25,714,451

ENVIRONMENTAL PERMITS BRANCH

The Environmental Permits Branch administers permit and registration systems for air, water and solid waste programs by reviewing and evaluating applications and engineering reports and plans.

WASTEWATER PERMITS SECTION

Under federal and state laws, no person can discharge pollutants into a waterway from a point source unless a permit is obtained from the Department, which regulates what may be discharged and how much. Point sources include private and public wastewater treatment facilities, manufacturing plants, agriculture, wholesale, retail and other commercial establishments. Those obtaining permits comply with firm, legally enforceable requirements to meet applicable state laws. At present, the Department administers 90 National Pollutant Discharge Elimination System permits and 35 Zones of Mixing.

The Department currently administers a General Pretreatment Program for the U.S. Environmental Protection Agency (EPA). This program controls wastewater discharges into municipal sewer systems. This program was approved for the City and County of Honolulu during 1982.

Another program administered by the Department is the Underground Injection Control (UIC) Program that regulates discharges of pollutants to subsurface disposal systems. There are an estimated 500 injection wells in the State which transmit wastewater of some kind into groundwaters. The UIC Program will determine and control any threat these wastewaters will have on our present and future drinking water resources.

The infant Section 401 Water Quality Certification Program requires that under Section 401 of the Clean Water Act (CWA) of 1977, construction or operations of facilities which may result in any discharge into navigable waters shall provide the licensing or permitting agency a certification from the State that such discharge will comply with the applicable provisions of sections 301, 302, 303, 306 and 307 of the CWA and applicable State water quality standards. The Department has been designated the State certifying agency.

TABLE 1

Permits Issued or Renewed (1986 Calendar Year)

NPDES	26
Zones of Mixing	6
Underground Injection Control	55
Section 401 Water Quality Certification	--

AIR POLLUTION CONTROL AND SOLID WASTE MANAGEMENT PERMITS SECTION

Air and solid waste permits are also administered by the Environmental Permits Branch. Air permits are issued to stationary sources of air pollution. Its primary objective is to safeguard the ambient air quality of the State. Under an agreement between EPA and the Department of Health, the Branch administers the source review provisions of the Prevention of Significant Deterioration (PSD) rules and implements certain categories of the Standards of Performance for New Stationary Sources and the National Emission Standards for Hazardous Air Pollutants.

In 1986, the Air Advisory Committee continued the adequacy review of Chapter 11-59, Ambient Air Quality Standards, and Chapter 11-60, Air Pollution Control. Having completed the review on the proposed rules for geothermal and coal burning facilities, the Committee was officially dissolved. The previously proposed, Prevention of Significant Deterioration (PSD) rule provisions became effective, April 14, 1986.

Solid waste permits are issued to sanitary landfills and processing facilities such as reclamation plants, transfer stations, convenience centers and incinerators so as to assure compliance with State's standards.

TABLE 2

Air Pollution Control (1986 Calendar Year)	
Authority to Construct Permits Issued	58
Permits to Operate Issued	87
Solid Waste Management (1986 Calendar Year))	
Permits Issued	18

SUMMARY - CALENDAR 1986

The principal activity of the Sanitation Branch is to maintain a sanitary and healthful environment for the people in Hawaii by providing inspectional, educational and enforcement activities. Sanitarians investigate and abate health nuisances and minimize insanitary conditions which may be a threat to health. Inspections are made of food and food service establishments; milk plants, frozen dessert manufacturing plants; dairy farms; dwelling units, hotels and other multi-dwelling units; public swimming pools; barber shops; mortuaries and cemeteries; laundries; private sewage disposal systems and various other premises for certificates of approval, clearances for licensure or for permit issuance; or for compliance with public health standards and requirements.

The total number of inspections showed an increase from 56,817 in 1985 to 59,736 in 1986. This increase in the number of inspections made was due to the filling of some of the vacant sanitarian positions.

The total number of insanitary conditions abated increased from 14,721 in 1985 to 16,121 in 1986. This increase in abatement of sanitary conditions reflects the desire towards accomplishing our objectives and goals.

The Drinking Water Program conducts activities as required by the Safe Drinking Water Act for public water systems as defined by statute. Table 6 provides a brief summary of the public water systems in the State of Hawaii identified by island which they serve and their owner classification. Recent amendments to the Safe Drinking Water Act which were signed into law in June of 1986 by the President of the United States will bring about substantial changes to the size and scope of drinking water activities in the State. Among these changes will be a tremendous increase in the number of chemicals monitored for, as well as an increase in the frequency with which these chemicals will be tested for. The new regulations propose increasing the number of chemicals tested to eighty-three over the next three years, and subsequently adding twenty-five every three years. In addition, the proposed regulations call for more samples per system by requiring the sampling of all entry points to the distribution system. Finally, the proposed regulations call for the monitoring of certain chemicals quarterly for the first year, with subsequent monitoring frequencies dictated by the first year's result. Additional sampling is proposed to be phased-in according to the size of the system, with the larger systems being tested first.

Other amendments to the Safe Drinking Water Act include requirements for filtration for surface water systems, disinfection for all systems, a ban on leaded products in the distribution systems of public water systems, and the development of a program to protect wellheads.

The Food Products Section in the Sanitation Branch of the Environmental Protection and Health Services Division protects the health of the consumer by ensuring that foods are wholesome; over-the-counter drugs and therapeutic devices are safe and effective; cosmetics are harmless; and that all these products are properly labeled, packaged, and advertised. The section is also empowered to require that certain hazardous household products carry adequate label warnings for the safety of children and to be packaged with safety closures.

The Food Products Section administers the Hawaii Food, Drug and Cosmetics Act; the Hawaii Poison Prevention Packaging Act; and the regulations on food and food

products, shellfish, milk, frozen desserts, and poisons. The primary responsibilities of the section involve the inspecting of food, drug and cosmetic establishments, investigating consumer complaints and collecting various specimens for examination to determine conformity with purity, labeling, and identity standards.

Inspections and investigations conducted by the Section resulted in the recall and destruction of various adulterated products including: Imported smoked opelu (ciguatoxin), abalone-like shellfish (histamines), wheat and flour products and other raw agricultural commodities (pesticide residues).

In January, the Food Products Section hosted the federal Food and Drug Administration's workshop involving pesticides and industrial chemicals. The course was for field regulatory personnel answering complaints, conducting investigations, and collecting samples when pesticides or industrial chemicals are involved.

TABLE 1

AVERAGE DAILY PRODUCTION OF PASTEURIZED MILK BY ISLAND
STATE OF HAWAII, 1986

ISLAND	AVERAGE DAILY PRODUCTION (Pounds)
OAHU	295,059
HAWAII	50,432
MAUI*	--
KAUAI	55,430

*Includes the islands of Maui, Molokai, and Lanai

No retail raw milk is sold for human consumption in the State.

2.5 pounds = 1 quart

TABLE 2

DAIRIES AND MILK PLANTS AS OF DECEMBER 31, 1986
BY TYPE AND ISLAND

TYPE	TOTAL	ISLAND			
		OAHU	HAWAII	MAUI*	KAUAI
Pasteurization Plants	5	2	1	1	1
Milk Plant Producers	23	16	5	1	1

*Includes the islands of Maui, Molokai, and Lanai

TABLE 3

DISTRIBUTION OF SANITARY INSPECTIONS BY TYPE AND ISLAND
STATE OF HAWAII, 1986

TYPE OF INSPECTION	TOTAL	ISLAND			
		OAHU	HAWAII	MAUI*	KAUAI
TOTAL INSPECTIONS	59736	33106	9761	9222	7647
Dwellings	3576	1281	117	609	1569
Apartments	474	380	24	59	11
Hotels	526	269	45	147	65
Lodging Houses	38	22	2	14	--
Tenements	46	42	--	4	--
Boarding Houses	50	34	2	14	--
Adult Family Boarding Homes	139	113	19	3	4
Care Homes	616	451	72	23	70
Day Care Centers	421	329	47	26	19
Kindergartens, Schools	616	335	56	157	68
Institutions, Hospitals	225	103	29	79	14
Funeral Establishments, Cemeteries	24	10	9	4	1
Liquor Dispensers	3293	2269	351	517	156
Grocery Stores	3901	2764	426	503	208
Markets	1836	1329	170	255	82
Bottling Plants, Canneries	78	10	16	38	14
Food Manufacturers	4597	2940	589	806	262
Restaurants, Cafeterias, Drive-Ins, Lunch Counters, etc.	12528	9029	1299	1613	587
Food Sales	2589	1321	555	492	221

TABLE 3 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	MAUI*	KAUAI
Lunch Wagons	1343	1166	86	74	17
Food Peddlers	331	303	11	6	11
Dairy Farmers, Milk Plants	919	519	208	113	79
Frozen Dessert Plants	108	82	6	6	14
Dispensing Freezers, Shave Ice Outlets	492	119	148	97	128
Vending Machine Operations	21	--	--	21	--
Warehouses	942	694	124	70	54
Hog Ranches, Poultry Farms, Feed Lots	188	110	9	37	32
Slaughterhouses	41	2	4	26	9
Vegetable Gardens	66	2	21	1	42
Flower Gardens	10	2	--	7	1
Barber Shops, Beauty Parlors	350	290	28	21	11
Massage Parlors, Reducing Salons	102	56	18	15	13
Tattoo Shops	51	45	--	6	--
Clothes Cleaners, Laundries	81	55	1	6	19
Secondhand Dealers	--	--	--	--	--
Mattress Makers	--	--	--	--	--
Amusement Places, Parks, Playgrounds	329	38	51	216	24
Recreational Trailer Camps	43	2	1	40	--
Industrial Plants, Small Shops, General Merchandise	802	40	247	378	137
Swimming Pools	795	482	208	50	55
Household Sewage Disposal Systems, House Drain, Sewer	6558	2741	1886	1023	908
Subdivisions	462	16	9	145	292
Unclassified	10129	3311	2867	1501	2450

*Includes the islands of Maui, Molokai and Lanai

TABLE 4

SUMMARY OF ACTIVITIES BY SANITARIAN

STATE OF HAWAII, 1986

ACTIVITY	TOTAL	ISLAND			
		OAHU	HAWAII	MAUI*	KAUAI
A. Inspection, Investigation, Enforcement					
1. Insanitary Practices & Hazardous Conditions Abated					
Structures Repaired	108	58	2	--	48
Plumbing, Fixtures Repaired	40	26	6	4	4
Water Supply Violations Corrected	48	16	27	4	1
Sewage Disposal Violations Corrected	861	81	249	459	72
Ventilation Corrected	63	11	3	--	49
Floor, Walls, Ceiling Cleaned	43	41	1	1	--
Streets, Alleyways, Yards Cleaned of Rubbish, etc.	105	96	5	--	4
Garbage Containers, Conveyances Corrected	50	47	1	1	1
Domestic Animals, Poultry Nuisances Abated	92	79	2	--	11
Vermin, Rodent, Birds, Animal Nuisances Abated	38	32	2	1	3
Food Equipment Replaced, Repaired	31	24	1	6	--
Food Equipment, Utensils Cleaned	9	9	--	--	--
Food Equipment, Utensils Sanitized	9	9	--	--	--
Food Equipment, Utensils Properly Stored, Handled	18	18	--	--	--
Food Storage, Display, Handling Corrected	14	12	1	1	--
Insanitary Personnel Practices Abated	7	6	1	--	--
Food Handlers' Certificate Obtained	1	1	--	--	--

TABLE 4 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	MAUI*	KAUAI
Toilet Room and Facilities Cleaned, Repaired	43	41	--	--	2
Barber, Beauty Shop Instruments Cleaned, Sanitized	15	10	1	4	--
Swimming Pool Disinfected; pH Maintained	49	42	7	--	--
Depth Marking Violations Corrected	17	13	2	--	2
Swimming Pool Safety Violations Corrected	108	70	35	--	3
Bacteriological Standards Met	9	3	5	--	1
Abnormal Milk Excluded	1	1	--	--	--
Milking Procedures Corrected	15	15	--	--	--
Thermometric Controls in Compliance	17	17	--	--	--
Pressure Differential of Pasteurizer Met	2	--	--	--	2
Holding Time of Pasteurizer Met	4	4	--	--	--
Required Data on Recorder-Controller Charts Furnished	5	5	--	--	--
Miscellaneous Nuisances Abated	270	225	14	6	25
Total Corrections Made	2076	996	365	487	228
2. Field Test for Cl, pH, Alk., Sed., Abnormal Milk	3226	568	1676	281	701
3. Samples Collected: Milk, Food, Water, Swabs, etc.	4488	476	2408	364	1240
4. Complaints Investigated	2080	1607	234	67	172
Warning Given	619	422	155	4	38
Verbal Orders Given	2157	1087	410	503	157
Verbal Orders Finished	1739	753	353	487	146
Total Verbal Orders Unfinished	12071	9914	1800	247	110

TABLE 4 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	MAUI*	KAUAI
Written Orders Given	99	27	63	1	8
Written Orders Finished	41	26	4	1	10
Total Written Orders Unfinished	305	136	59	99	11
5. Certificates Issued	510	308	37	122	43
6. Permits Issued	139	52	48	13	26
7. Permits Degraded	1	1	--	--	--
8. Permits Suspended, Revoked	3	--	3	--	--
9. Prosecutions	5	3	--	--	2
B. Education					
1. Food, Milk Handlers' Class	2	2	--	--	--
2. Workshops, Meetings	203	101	44	19	39
3. In-Service Training	134	126	8	--	--
Technical Review and Consultation Provided	7480	2107	795	382	4196

*Includes the islands of Maui, Molokai and Lanai

TABLE 5

DAILY SUMMARY OF FOOD SERVICE AND FOOD ESTABLISHMENTS

STATE OF HAWAII, 1986

ACTIVITY	TOTAL	ISLAND			
		OAHU	HAWAII	MAUI*	KAUAI
INSPECTION, INVESTIGATION, ENFORCEMENT					
A. Insanitary Practices and Hazardous Conditions Abated					
1. Food Source, Wholesome	272	124	15	118	15
2. Food—Original Container, Properly Labeled	381	202	40	109	30
3. Potentially Hazardous Food Meets Temperature Requirements	388	215	56	110	7
4. Facilities to Maintain Product Temperature	147	60	10	48	29
5. Thermometers Provided and Conspicuous	499	338	62	79	20
6. Potentially Hazardous Food Properly Thawed	213	124	24	58	7
7. Unwrapped and Potentially Hazardous Food Not Re-served	19	18	1	--	--
8. Food Protection—Storage, Preparation, Display, Service, Transportation	1328	927	74	257	70
9. Handling of Food (Ice) Minimized	152	104	12	35	1
10. Food (Ice) Dispensing Utensils Properly Stored	369	186	23	138	22
11. Personnel Infections, Communicable Disease Restricted; T.B. Clearance Card	84	56	15	8	5
12. Hands Washed and Clean, Good Hygienic Practice	390	300	17	52	21
13. Clean Clothes, Hair Restraints	552	434	37	71	10
14. Food Contact Surfaces: Designed, Constructed, Maintained, Installed	626	430	34	146	16
15. Non-Food Contact Surfaces: Designed, Constructed, Maintained, Installed	597	332	72	179	14
16. Dishwashing Facilities: Designed, Constructed, Maintained, Installed	283	193	11	52	27
17. Accurate Thermometers	48	14	12	22	--
18. Single Service Articles, Storage, Dispensing	185	95	20	65	5

TABLE 5 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	MAUI*	KAUAI
19. No Re-Use of Single-Service Articles	43	8	21	5	9
20. Pre-flushed, Scraped, Soaked	87	62	1	18	6
21. Wash, Rinse Water: Clean, Proper Temperature	68	41	--	24	3
22. Sanitization Rinse: Clean, Temperature, Concentration	505	350	29	88	38
23. Wiping Cloths: Clean, Use Restricted	369	234	29	103	3
24. Food-Contact Surfaces of Equipment and Utensils Clean	964	717	26	194	27
25. Non-Food Contact Surfaces of Equipment & Utensils Clean	934	660	53	198	23
26. Storage, Handling of Clean Equipment-Utensils	258	115	16	116	11
27. Water Source, Safe: Hot & Cold Under Pressure	250	180	20	34	16
28. Sewage and Waste Water Disposal	99	79	7	10	3
29. Plumbing—Installed, Maintained	301	220	7	63	11
30. Plumbing—Cross-Connection, Back Siphonage, Backflow	98	41	9	32	16
31. Toilet & Handwashing Facilities—Number, Convenient, Accessible, Installed	318	203	18	59	38
32. Toilet Rooms, Self-Closing Doors, Good Repair, Clean Hand Cleanser, Sanitary Hand-Drying, Proper Waste Receptacles	820	556	57	153	54
33. Garbage & Refuse Disposal Receptacles Covered: Adequate No., Insect/Rodent Proof, Clean	249	163	12	66	8
34. Outside Storage Area, Enclosures Properly Constructed, Clean: Incineration Controlled	85	54	5	25	1
35. Presence of Insects, Rodents—Outer Openings Protected, Turtles, Other Animals, Proper Insecticides	937	642	80	181	34
36. Floors: Constructed, Drained, Clean, Good Repair, Covering Installation, Dustless Cleaning Method	861	632	41	160	28
37. Walls, Ceiling, Attached Equipment: Constructed, Good Repair, Clean, Surfaces, Dustless Cleaning Methods	850	607	41	167	35
38. Lighting Provided as Required	226	105	14	87	20
39. Rooms and Equipment—Vented as Required	152	107	8	31	6
40. Dressing Rooms—Rooms Clean, Lockers Provided, Facilities Clean	166	93	11	62	--
41. Toxic Items Properly Stored, Labeled, Used	856	567	60	189	40

TABLE 5 (Continued)

ACTIVITY	TOTAL	OAHU	HAWAII	MAUI*	KAUAI
42. Premises: Maintained, Free of Litter, Unnecessary Articles, Cleaning/Maintenance Equipment Properly Stored, Authorized Personnel	533	339	16	147	31
43. Complete Separation from Living/Sleeping Quarters, Laundry	14	3	2	8	1
44. Clean, Soiled Linen Properly Stored	63	12	11	40	--
Total Corrections Made	16121	10772	793	3807	749
B. Field Test for Cl, pH, Alk, etc.	2331	1219	153	820	139
C. Samples Collected: Food, Water Swabs, etc.	468	377	56	29	6
D. Complaints Investigated	869	698	59	61	51
E. Orders and Warnings					
Warnings Given	4612	3093	818	604	97
Verbal Orders Given	16628	9928	2708	3085	907
Verbal Orders Finished	14395	8759	1066	3807	763
Total Verbal Orders Unfinished	84739	77456	3290	3296	697
Written Orders Given	53	50	1	--	2
Written Orders Finished	52	49	1	--	2
Total Written Orders Unfinished	327	310	--	13	4
F. Certificates Issued	5430	4790	47	593	--
G. Permits Issued	1439	868	321	118	132
H. Permits Suspended, Revoked	104	10	94	--	--
I. Prosecutions	8	8	--	--	--
EDUCATION					
A. Food Handlers' Class	44	10	32	1	1
B. Workshops, Meetings	95	54	30	6	5
C. In-Service Training	146	103	40	3	--
TECHNICAL REVIEW AND CONSULTATION PROVIDED	4650	2317	1068	302	963

*Includes the islands of Maui, Molokai and Lanai

TABLE 6

PUBLIC WATER SYSTEMS*
STATE OF HAWAII, 1986

SYSTEMS	Total	Island			
		Hawaii	Maui	Oahu	Kauai
Municipal Systems	55	21	11	8	15
Private Systems	67	18	18	22	9
State Systems	13	1	3	5	4
Federal Systems	28	4	4	18	2
Total	163	44	36	53	30
Sanitary Surveys**	31	8	7	11	5

* A Public Water System is defined as a system that has at least fifteen service connections or regularly serves an average of at least twenty-five individuals daily at least sixty days out of the year.

** A Sanitary Survey is an on-site inspection of a public water system by Department personnel using standard procedures to determine the effectiveness of the operation and maintenance of the system in providing safe water to the consuming public.

TABLE 7

SUMMARY OF SAMPLES EXAMINED BY THE FOOD PRODUCTS SECTION
STATE OF HAWAII, 1986

Type of Samples Collected	Number Collected	Violative Samples
Foods for Pesticide Analyses a/	191	10
Samples for Evidence Documentation b/	342	224
Product Standard Samples c/	86	16
Water Samples from Shellfish Growing Areas	50	26
Seafood (Imported Shellfish)	26	4

a/ Pesticide analyses of foods other than milk and milk products.

b/ Samples to document a violation or suspected violation which may have been found during an inspection or investigation.

c/ Samples to determine compliance with labeling and product standard requirements.

TABLE 8

SAMPLES AND ANALYSES OF MILK AND MILK PRODUCTS
STATE OF HAWAII, 1986

Product	No. of Samples for Product Standards a/	Violative Samples b/	No. of Samples for Pesticide Analyses	Violative Samples b/
Raw Milk	343	18	94	--
Homogenized Milk	250	15	72	--
Others c/	753	74	--	--

a/ Analyses to determine compliance with various milk standards including microbiological, inhibitory substance, somatic cell, phosphatase, milkfat, solids-not-fat, and temperature standards.

b/ The number of violative samples include retested samples.

c/ Other milk products include recombined milk, imitation milk, skim milk, yogurt, sour cream, milk containers, etc.

TABLE 9

SAMPLES AND ANALYSES OF FROZEN DESSERTS
STATE OF HAWAII, 1986

Type of Frozen Dessert	Number of Samples	Violative Samples
Ice Milk	1,059	347
Ice Cream	72	15
Sherbet	20	--
Frozen Yogurt	212	45
Others (non-dairy)	58	24
Total	1,421	431

Samples tested for compliance with various frozen dessert standards including milkfat, solids-not-fat and microbial standards.

TABLE 10

FOOD AND OVER-THE-COUNTER DRUGS CONDEMNED AND DESTROYED BY COUNTY
STATE OF HAWAII, 1986

County	Foods (Weight in Pounds)	Retail Value	Over-The-Counter Drugs & Medical Devices (Weight in Pounds)	Retail Value
Honolulu	2,607,930	$ 700,281	--	--
Hawaii	121,559	29,072	--	--
Maui	1,443	1,775	--	--
Kauai	41,502	16,167	--	--
Total	2,772,434	$ 747,295	--	--

TABLE 11

SELECTED ACTIVITIES OF THE FOOD PRODUCTS SECTION
STATE OF HAWAII, 1986

Activities	Number
Agency Assistance	19
Complaint Investigations	270
Label Reviews	705
Frozen Dessert Permits Issued	233
Poison Permits Issued (new) a/	36
Permits Issued for Prophylactic Devices	2
Number of Consultations	1,789

SUMMARY

The objective of the Vector Control Branch is to prevent outbreaks of vector-borne diseases and serious vector nuisances. This is accomplished through program activities that are designed to control existing vector populations and prevent encroachment of new vector species from abroad.

Table 1 presents the principal activities of the Branch. There was an overall increase in the number of area vector abatement activities in 1986 compared to the previous year.

Table 2 presents the small mammal retrieval data by island and area. All totals were generally lower than the previous year, especially the trap days and number of mammals retrieved.

Table 3 presents a summary of the zoonosis laboratory activities and findings. Serology testing was generally higher overall in 1986 than the previous year. The number of macroscopic examinations, the number of fleas recovered, and the number of sera tested for murine typhus all increased over the previous year.

Table 4 presents a summary of the applied vector research projects. These projects are conducted to provide the program with a better basis for controlling vectors.

TABLE 1

PRINCIPAL ACTIVITIES OF THE VECTOR CONTROL BRANCH ON THE

ISLANDS OF OAHU, HAWAII, MAUI AND KAUAI

STATE OF HAWAII, 1986

Activity	Total	Island			
		Oahu	Hawaii	Maui	Kauai
Vector Surveillance					
Mosquitoes (Lt-Trap Days)	40,070	21,927	9,745	2,557	5,841
Small Mammals (Trap-Days)	256,570	48,091	171,958	36,457	64
Flies (Trap-Days)	1,727	1,595	132	-	-
Yellowjackets (Trap-Days)	14,221	...	13,126	...	1,095
Others (Trap-Days)	4,519	2,280	1,444	795	-
Domestic Vector Abatement					
No. Premises Inspected for Survey	14,221	61	12,437	1,693	30
No. Additional Premises Inspected During Complaints Enforcement	4,298	2,170	1,350	459	319
Demolition Permits Investigated	558	501	9	46	2
Referrals Investigated	119	44	40	1	34
Complaints Investigated	3,210	1,572	1,138	405	95
Mosquitoes	409	266	73	57	13
Rodents	1,692	765	631	241	55
Flies	172	108	36	17	11
Fleas	164	94	51	14	5
Mites/Ticks	97	74	19	3	1
Cockroaches	65	35	11	17	2
Wasps/Bees	216	20	159	35	2
Others	395	210	158	21	6
Area Vector Abatement					
Storm Drains, Pits Trtd. (No.)	13,078	3,643	2,346	7,045	44
Mosq. Brdg. Areas Insp. (Ac.)*	54,714.1	36,603.7	1,726.3	5,191.1	11,193.0
Mosq. Brdg. Areas Trtd. (Ac.)	2,883.0	1,075.4	201.2	837.2	769.2
Mosq. Adulticiding (Ac.)	155.6	13.6	6.5	106.5	29.0
Mosq. Brdg. Containers Trtd. (No.)	50,739	1,298	43,141	3,716	2,584
Mosq. Bio-Control (No. Fish Stocked)	138,040	85,100	940	7,000	45,000
Rodent Area Treated (Ac.)	4,863.6	0.3	793.5	4,069.8	-
Fly Control (Ac.)	11.0	2.0	4.0	-	5.0
Yellowjacket Nests Destroyed (No.)	114	-	104	8	2
Cordon Sanitation					
Airport Inspection (Freq.)	1,442	147	871	359	65
Harbor/Pier Inspection (Freq.)	1,693	269	995	359	70
Rodent Bait Stations (No.)	355	187	115	53	...
Mosq. Brdg. Containers Trtd. (No.)	1,272	1,242	15	3	12
Education and Consultation					
People Reached (No.)	6,467	3,535	1,004	811	1,117
Vector Identification (No.)	1,021	633	161	220	7
Source Reduction (No.)	1,231	215	98	572	346
Applied Vector Research					
On-Going Projects	8	8	...	...	...

* Ac. = Acre

TABLE 2

TOTAL SMALL MAMMAL RETRIEVALS BY ISLAND, ACTIVITY, AND SPECIES

STATE OF HAWAII, 1986

Island	Activity	Trap-Days*	Total Small Mammals Retrieved	Species								
				Rattus					Mus musculus		Herpestes auropunctatus	
				Total								
				Number	Percent	exulans	norvegicus	rattus	Number	Percent	Number	Percent
Hawaii	Field	77,791	5,435	3,665	67.4	1,056	518	2,091	879	19.4	891	16.2
	Cordon	94,167	3,398	357	10.5	49	12	296	2,005	59.0	1,036	30.5
	Total	171,958	8,833	4,022	45.5	1,105	530	2,387	2,884	32.7	1,927	21.8
Oahu	Field	16,129	863	480	55.6	8	51	421	301	34.9	82	9.5
	Cordon	31,962	36	17	47.2	-	4	13	6	16.7	13	36.1
	Total	48,091	899	497	55.3	8	55	434	307	34.1	95	10.6
Maui	Field	2,829	183	128	70.0	44	-	84	53	29.0	2	1.1
	Cordon	33,628	57	16	28.1	16	-	-	41	71.9	-	-
	Total	36,457	240	144	60.0	60	-	84	94	39.2	2	0.8
Kauai	Field	64	10	5	50.0	-	3	2	5	50.0	...	...
	Cordon	...	...	...	...	...	...	...	...	...	...	...
	Total	64	10	5	50.0	-	3	2	5	50.0	...	...
Total	Field	96,813	6,491	4,278	65.9	1,108	572	2,598	1,238	19.1	975	15.0
	Cordon	159,757	3,491	390	11.2	65	16	309	2,052	58.8	1,049	30.0
	Total	256,570	9,982	4,668	46.8	1,173	588	2,907	3,290	33.0	2,024	20.3

* Trap-Days = No. Traps Set X No. of Days Trapped

TABLE 3

SUMMARY OF ZOONOSIS LABORATORY ACTIVITIES AND FINDINGS BY AREA

STATE OF HAWAII, 1986

Activity	Total	Island				
		Oahu	East Hawaii	West Hawaii	Maui	Kauai
No. Macroscopic Examinations	9,804	1,593	1,639	6,469	103	...
Ectoparasites Recovered						
No. Fleas	114	97	1	16	-	...
No. Mites	1,305	1,185	86	34	-	...
No. Lice	85	85	-	-	-	...
Serology						
No. Sera for Branch Tests	4,723	476	1,820	2,327	100	...
Plague[a/]						
No. Sera Tested	495	45	270	180	-	...
No. Sera Positive (%)	-	-	-	-	-	...
Murine Typhus[b/]						
No. Sera Tested	4,228	431	1,550	2,147	100	...
No. Sera Positive (%)	99 (2.3)	18 (4.2)	14 (0.9)	41 (1.9)	26 (26.0)	...
Leptospirosis[c/]						
No. Cultures Prepared	492	481	11	...	...	...
No. Cultures Positive (%)	113 (23.0)	110 (22.9)	3 (27.3)	...	...	...

a/ Only animals retrieved from ports of entry tested for plague.
b/ Only rat sera tested by IFA technique.
c/ Oahu and East Hawaii only.

TABLE 4

APPLIED VECTOR RESEARCH PROJECTS

STATE OF HAWAII, 1986

Pest Common Name (Scientific Name)	Project Title	Status/Purpose
Rodents	Efficacy Testing of New Rodenticides: Cholecalciferol and Bromadialone	Completed. Laboratory tests showed that these two rodenticides to be effective and safer than those presently being used.
Rodents	Resistance Testing of Rats to the Rodenticides: Diphacinone and Pival	Completed. Test results confirmed our suspicions that the rats on Oahu are becoming resistant to these two commonly used anticoagulant rodenticides.
Mongoose (Herpestes auropunctatus)	Mongoose Population Surveys	Completed. Trapping studies to determine mongoose populations in different habitats for more efficient control during a rabies outbreak.
Rodents	Rodent Population Surveys in Residential Communities on Oahu	Completed. Development of a standardized survey method for rodents in residential areas to obtain baseline data for future comparisons of rodent population changes in each community.
Rodents and Mosquitoes	Evaluation and Improvement of Rodent and Mosquito Control at Seaports and Airports	Completed. Improve rodent and mosquito control methods at airports and seaports to prevent plague and exotic mosquitoes from entering Hawaii.

TABLE 4 (Continued)

Pest Common Name (Scientific Name)	Project Title	Status/Purpose
Long-Legged Ant (Anoplolepis longipes)	Distribution, Abundance, and Control of the Long-Legged Ant	Ongoing. Ecological studies of individual colonies in the field are continuing to determine the reason(s) for the ineffectiveness of normal ant control methods (baits and insecticides).
Mouse (Mus musculus)	Mice Ecology Studies to Aid in Predicting Major Mice Population Explosions that Periodically Occur on Hawaii, Maui, and Oahu	Ongoing. Preliminary studies indicate that population increases combined with an increased average weight of mice above 10 grams may be indicative of mice population explosions.
Mongoose (Herpestes auropunctatus)	Development of a Contingency Plan to Eradicate Mongooses During Any Future Rabies Outbreak	Ongoing. Studies are continuing on population densities, trapping methods, and poisoning methods.

SUMMARY

The Litter Control Office was established within the Department of Health pursuant to Act 2, First Special Session of the 1977 Legislature. The purpose of the office is to promote, coordinate and implement litter control in the State through public education and awareness, streamlined enforcement, continuing voluntary anti-litter campaigns, and requirements for litter receptacles.

"Litter" means all rubbish, refuse, waste material, garbage, trash, offal, or any debris of whatever kind or description, whether or not it is of value, and includes improperly discarded paper, metal, plastic, glass, or solid waste.

The results produced in the 1986 Community Work Day Program are listed in Table 1. Statewide Community Work Days were held on 5 days in 1986 and local community work day projects were held throughout the year.

Table 2 shows the number of participating schools and individuals and the amount of aluminum cans and newspapers and other materials collected in the 1986 Statewide Recycling Campaign. The campaign was conducted during the month of February on the islands of Oahu, Maui, Kauai, Hawaii and Molokai. The Governor's Advisory Committee on Litter Control and The Recycling Group co-sponsored this campaign with the Litter Control Office.

Table 3 shows the number of litter control materials that were made available to community organizations, youth groups and the general public. Car litter bags and the various types of educational and promotional materials are available to the public, upon request, for litter control projects and promotional purposes.

TABLE 1

1986 COMMUNITY WORK DAY PROGRAM
STATE OF HAWAII

No. Bags of Litter Picked Up	30,749
No. of Participating Groups	782
No. of Participants	11,234
Total Dollars Collected by Neighborhood Committees	$5,575

TABLE 2

STATE RECYCLING CAMPAIGN
STATE OF HAWAII, FEBRUARY 1986

No. of Participating Schools	Approximate No. of Participating Individuals	No. of Pounds of Aluminum Cans Collected	No. of Pounds of Other Materials Collected	Total Dollars Earned
82	101,000	201,577	479,147	$58,969

TABLE 3

LITTER CONTROL MATERIALS DISTRIBUTED
STATE OF HAWAII, 1986

Type of Material	Total Amounts Distributed
Car Litter Bags	46,000
Bumper Stickers and Decals	12,600
Printed Materials a/	52,800
Other Promotional Materials b/	13,300

a/ Flyers, posters, brochures, and notices.
b/ Magnets, bookcovers, calendars, pens, keytags, and weepuls.

MEDICAL HEALTH SERVICES DIVISION

DIABETES SCREENING SURVEY

Chronic Disease Branch

Statistical Report - 1986

Table 1 shows the total number of persons screened and the new diabetics found by age and sex. Although 3,600 more persons were screened, the overall rate of positive screenees was only slightly higher than last year's (2.50 vs. 2.31), while the rate of new diabetics was lower (5.40 vs. 7.26). This may be attributable to more known diabetics coming to the screenings for monitoring, since the Hawaii Diabetes Association's screening program had been curtailed.

Table 2 shows the rates of new diabetics by race and sex. Hawaiians/Part-Hawaiians again showed the highest rate of 8.20 per thousand. Puerto Ricans and Koreans had too few screenees to be significant. Filipinos were second highest, with a 7.09 per thousand rate and Japanese the lowest (5.00 per thousand).

Table 3 shows the rates by island. Maui showed the highest rate of new diabetics, while Hawaii had the highest rate of positive screenees.

Table 4 shows figures for blood pressure screening, which is usually performed at the site of the diabetes screenings. The overall number of abnormals (140/90 or above) is in accord with national figures.

TABLE 1
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY AGE AND SEX FOR JULY, 1985 - JUNE, 1986

	TOTAL SCREENED			POSITIVE SCREENEES						NEW DIABETICS					
				NUMBER			PERCENT			NUMBER			RATE		
	TOTAL	MALE	FEMALE	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F
ALL AGES	10,364	4,179	6,185	260	118	142	2.50	2.82	2.29	56	21	35	5.40	5.02	5.65
UNDER 25	753	284	469	8	3	5	1.06	1.05	1.06	2	0	2	2.65	0.00	4.26
25-44	2,443	865	1,578	31	10	21	1.26	1.15	1.33	6	3	3	2.45	3.46	1.90
45-54	1,269	475	794	32	14	18	2.52	2.94	2.26	7	3	4	5.51	6.31	5.03
55-64	2,449	957	1,492	69	33	36	2.81	3.44	2.41	17	6	11	6.94	6.26	7.37
65-OVER	3,450	1,598	1,852	120	58	62	3.47	3.62	3.34	24	9	15	6.95	5.63	8.09

*Number of new diabetics per thousand screenees.

TABLE 2
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY RACE AND SEX FOR JULY, 1985 - JUNE, 1986

	TOTAL SCREENED			POSITIVE SCREENEES						NEW DIABETICS					
				NUMBER			PERCENT			NUMBER			RATE*		
	TOTAL	MALE	FEMALE	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL	M	F
ALL RACES	10,364	4,179	6,185	260	118	142	2.50	2.82	2.29	56	21	35	5.40	5.02	5.65
JAPANESE	4,393	1,690	2,703	103	44	59	2.34	2.60	2.18	22	7	15	5.00	4.14	5.54
CAUCASIAN	2,471	1,066	1,405	54	24	30	2.18	2.25	2.13	13	6	7	5.26	5.62	4.98
HAWAIIAN,PART-HA	853	335	518	26	12	14	3.04	3.58	2.70	7	2	5	8.20	5.97	9.65
CHINESE	714	310	404	19	13	6	2.66	4.19	1.48	4	4	0	5.60	12.90	0.00
FILIPINO	987	433	554	42	19	23	4.25	4.38	4.15	7	2	5	7.09	4.61	9.02
KOREAN	120	44	76	6	1	5	5.00	2.27	6.57	2	0	2	16.66	0.00	26.31
PUERTO RICAN	78	32	46	3	2	1	3.84	6.25	2.17	1	0	1	12.82	0.00	21.73
OTHER & UNSPEC.	748	269	479	7	3	4	0.93	1.11	0.83	0	0	0	0.00	0.00	0.00

*Number of new diabetics per thousand screenees.

TABLE 3
DEPARTMENT OF HEALTH
CHRONIC DISEASE BRANCH

DIABETES SCREENING SURVEY BY ISLAND FOR JULY 1, 1985 - JUNE 30, 1986

LOCATION	TOTAL SCREENED	NO. POSITIVE DEXTROSTIX	NO. POSITIVE AUTOANALYZER	NEW DIABETICS	RATE PER 1000 SCREENED
OAHU	6,335	177	151	32	5.05
HAWAII	2,665	100	100	16	6.00
MAUI	761	12	0	5	6.57
KAUAI	442	5	5	1	2.26
MOLOKAI	46	0	0	0	0.00
OTHERS	115	4	4	2	17.39
TOTAL	10,364	298	260	56	5.40

TABLE 4

BLOOD PRESSURE SCREENING

Fiscal Year 1985-86

TOTAL SCREENED	Number 5,081	Percent 100.0
Total Abnormal Referrals	1,246	24.5
New Referrals	734	14.4
Known Hypertensive Referrals	512	10.1
Total Normal Screenees	3,835	75.5

*Abnormal criteria is 140/90 or above.

EMERGENCY MEDICAL SERVICES SYSTEM BRANCH

Summary 1986

The Emergency Medical Services System Branch (EMSS) is responsible for the administration and coordination of the state comprehensive emergency medical services system through a cohesive network of components that are designed to reduce morbidity and mortality by assuring the availability and accessibility of the best possible prehospital emergency medical services statewide.

Emergency ambulance services are provided on each of the six major islands within identified geographic areas that allow a response time standard of 95% of all calls responded to within an average of twenty minutes. EMS training programs for Emergency Medical Technicians, Mobile Intensive Care Technicians, and public safety personnel (county and state fire, police, and lifeguards) are provided through the Community Colleges on Oahu, Maui, Kauai, and Hawaii. The statewide MEDICOM medical communication system utilizes complex communication equipment that provides voice communication between ambulance personnel and hospitals. This communication system is essential so that physicians may provide medical direction in the delivery of prehospital emergency medical care.

Table 1 shows the number of emergency ambulance units located on each island and the level of service provided.

Table 2 shows the number of calls responded to by emergency ambulance units on each island.

TABLE 1
EMERGENCY AMBULANCE UNITS/LEVEL OF SERVICES BY ISLAND
STATE OF HAWAII, FISCAL YEAR 1985-86

Island	Level of Service		Total
	BLS	ALS	
Oahu	-	13	13
Hawaii	2	6	8
Maui	1	4	5
Molokai	-	1	1
Lanai	1	-	1
Kauai	-	3	3
Total	4	27	31

BLS = Basic Life Support
ALS = Advanced Life Support

TABLE 2
EMERGENCY AMBULANCE CALLS RESPONDED TO BY ISLAND
STATE OF HAWAII, CALENDAR YEARS 1983-86

Island	1983*	1984*	1985*	1986*
Oahu	26,597	24,869	27,407	27,039
Hawaii	4,868	4,889	4,535	4,963
Maui	3,242	3,419	3,752	3,663
Molokai	278	371	355	376
Lanai	39	50	80	47
Kauai	1,490	1,567	1,720	1,912
Total	36,514	35,165	37,849	38,000

* Preliminary data based on manual record count

DEPARTMENT OF HEALTH ANNUAL REPORT

LABORATORY SERVICES

The Laboratories Branch provides services to other state agencies, institutions and other Department of Health programs to enhance their effectiveness in the protection of the public's health and safety, and to control the quality of the environment and to enforce the various state laws and regulations.

The services provided include air pollution chemistry; medical microbiology (bacteriology, mycobacteriology, mycology, parasitology, serology and virology); food and drug analyses; milk and milk product analyses; pesticide analyses; sanitary microbiology and environmental and sanitary chemistry. The branch also provides training opportunities for other laboratory personnel in the state, as well as consultation and reference services for other laboratorians in the state.

In fiscal year 1986, the branch continued to work with departmental programs to improve the quality and availability of laboratory services in the state. Several functions, eliminated in past years, were replaced by newer methods to meet higher priority demands. The Environmental Chemistry section added capabilities for High Performance Liquid Chromatography (HPLC) and the availability of a Mass Selective Detector (MSD) to its arsenal of testing and identification capabilities for the detection of environmental compounds. The Medical Microbiology Section added a new fluorescent microscope, in anticipation of the need to expand its capabilities in the area of Immunofluorescence. Logistical details for the implementation of testing capabilities for Human Immunodeficiency Virus (HIV) antibodies were also begun during the year.

The Laboratories Branch, like many of its mainland counterpart state laboratories, continues to upgrade its capabilities as the U.S.E.P.A., the U.S.F.D.A. and the Centers for Disease Control identify areas of state responsibility. This along with the identified needs of the state programs, has led to a re-evaluation of the Branch's capabilities and the need for additional resources. The need to transfer technology to other laboratories and to provide more sophisticated laboratory analyses in key areas of public health interest and to provide services where none exist are problems to be continually addressed by the branch. The branch has continued to be recertified by the U.S.F.D.A. to perform microbiological and chemical analyses on shellfish and milk; recertified by U.S.E.P.A. to perform microbiological and chemical analyses on potable; recertified by the U.S.E.P.A. to perform air pollution monitoring analyses. The branch also continues to serve as a Salmonella typhi Phage Typing Center for the CDC and as a Collaborating Laboratory in the World Health Organization's Influenza Surveillance system. The medical bacteriology unit also serves as a reference laboratory for the Centers for Disease Control. At the request of these agencies, the Branch has also provided support Pacific rim areas, in the form of training, consultation and reference laboratory work.

TABLE 1

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1985 TO JUNE 1986

Group	Serotype	All Ages Total	Less than Six Months	Six Months to One Year	One Year to Three Years	Three Years to Ten Years	Ten Years to Twenty Years	Twenty Years and Over	Unknown
		461	80	50	49	52	25	152	53
A	paratyphi A	10					1	9	
B	agona	13	4	1	1	1		5	1
	bredeney	8	3	2	1			2	
	derby	7	2	3				2	
	heidelberg	32	4	3	4	6		12	3
	indiana	1			1				
	kiambu	1						1	
	reading	3	1	1	1				
	saint-paul	4			1	1		1	1
	san-diego	1							1
	schwarzergrund	2				1		1	
	stanley	1						1	
	typhimurium	59	10	9	14	6	3	12	5
	typhimurium var copenhagen ..	11	3	1	2	3		1	1
C_1	infantis	4		1		1		2	
	montevideo	23	2	1	4	2	3	2	9
	ohio	3	2					1	
	oranienburg	2	1					1	
	oslo	3	1	2					
	mbandaka	1						1	
	tennessee	1						1	
	thompson	3				2		1	
C_2	blockley	2	1						1
	hadar	8		1		1		5	1
	kottbus	1						1	
	manhattan	3			1	1		1	
	muenchen	8	2	1	1	2		2	
	newport	19	3	3	2	2		8	1

TABLE 2

INCIDENCE OF SALMONELLA BY TYPE AND AGE
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - JULY 1985 TO JUNE 1986

Group	Serotype	All Ages Total	Less than Six Months	Six Months to One Year	One Year to Three Years	Three Years to Ten Years	Ten Years to Twenty Years	Twenty Years and Over	Unknown
C_3	albany	1			1				
D_1	dublin	3				1		2	
	enteritidis	14	1		1	2	1	8	1
	panama	26	1	7	5	6	2	4	1
	typhi, phage type A	3			1		2		
	typhi, phage type M	30				6	6	10	8
	typhi, W-Form	10						1	9
	salmonella 9, 12:nonmotile	2						2	
E_1	amager	1	1						
	anatum	8	1	1		1		5	
	give	3	1	1				1	
	london	3			1			2	
	muenster	3	1	2					
	weltevreden	105	31	5	8	6	7	39	9
E_2	lanka	8	3				2	3	
E_4	senftenberg	1	1						
F	aberdeen	1		1					
G	poona	1							1
K	cerro	4		4					

TABLE 3

INCIDENCE OF SALMONELLA BY TYPE FROM NONHUMAN SOURCES
CENTRAL LABORATORY ON OAHU
STATE OF HAWAII - JULY 1985 TO JUNE 1986

Group	Salmonella Serotype	SOURCE									
		TOTAL	Avian	Bovine	Canine	Crocodile	Gecko-Lizard	Equine	Porcine	Snake	Water (Prawn Tank)
B	agona	10					10				
	derby	5	2				1		2		
	san-diego	7	7								
	stanleyville	2	2								
	typhimurium	40	34		2				4		
	typhimurium var copenhagen	1							1		
C_1	infantis	4	2							2	
	ohio	6							6		
	nessziona	1					1				
C_2	manhattan	2						2			
	newport	4			2		2				
D	dublin	2		2							
	enteritidis	4	4								
E_1	anatum	2							2		
	give	5					5				
	muenster	6	2	4							
	weltevreden	14		2			5		5		2
E_2	lanka	5	4				1				
K	cerro	2		2							
U	houten	3					3				
	Salmonella O's-:H's r:1,6	2				2					
	TOTAL	127	57	10	4	2	28	2	20	2	2

TABLE 4

INCIDENCE OF PARASITES FROM HUMANS
CENTRAL LABORATORY ON OAHU
STATE OF HAWAII - JULY 1985 TO JUNE 1986

Total Number of Specimens Examined 204	Total Number of Specimens Positive 33	Total Number of Parasites Found 44

INTESTINAL PARASITES FOUND

ORGANISM	Number Found	ORGANISM	Number Found
PROTOZOA		HELMINTHS	
Sarcodina (Amebae)		Nematoda (Round Worms)	
Entamoeba histolytica	4	Enterobius vermicularis	3
Entamoeba hartmanni	3	Trichuris trichiura	7
Endolimax nana	6	Ascaris lumbricoides	6
		Strongyloides stercoralis	2
Mastigophora (Flagellates)			
Dientamoeba fragillis	1	Trematoda (Fluke)	
Giardia lamblia	4	Clonorchis sinensis	3
Undetermined Classification			
Blastocystis hominis	5		

VIRAL ISOLATIONS

CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - FISCAL YEAR 1986

TYPE OF SPECIMEN	NUMBER SPECIMENS			NUMBER OF EXAMINATIONS
	Received	Positive	Negative	
Throat Swabs	297	50	247	347
Fecal	41	2	39	43
Spinal Fluid	33	4	29	37
Blood	1	0	1	1
Tissue	5	0	5	5
Other	222	47	175	269
Genital Herpes	631	251	380	882
TOTAL	1,230	354	876	1,584

VIRAL AGENTS ISOLATED:

1) Throat Swabs:

	NUMBER ISOLATED
Adenovirus Type (?)	4
Coxsackievirus Type A-9	1
Coxsackievirus Type B-2	1
Coxsackievirus Type B-4	1
Coxsackievirus Type B-5	1
ECHOvirus Type 9	4
ECHOvirus Type 11	1
ECHOvirus Type 21	2
Herpesvirus hominis	4
Influenza A/Chile/1/83 (H1N1)	1
Influenza A/Philippines/2/82 (H3N2)	15
Influenza B/USSR/100/83	15

2) Rectal/Fecal Swabs:

Coxsackievirus Type B-5	1
Herpesvirus hominis	1

3) Cerebrospinal Fluids:

Coxsackievirus Type B-2	1
Coxsackievirus Type B-5	1
ECHOvirus Type 9	1
ECHOvirus Type 14	1

4) Miscellaneous Specimens:

Coxsackievirus Type B-2	1	(from a swab of an undetermined site)
Coxsackievirus Type B-5	1	(from a a swab of an undetermined site)
ECHOvirus Type 9	2	(1 from a nasopharyngeal swab, 1 from a swab of an undetermined site)
ECHOvirus Type 11	1	(from a swab of an undetermined site)
Herpesvirus hominis	292	(251 from genital region specimens, 32 from skin specimens, 9 from swabs of an undetermined site)
Influenza B/USSR/100/83	1	(from a swab of an determined site)

VIRAL SEROLOGIES
CENTRAL LABORATORY ON OAHU

STATE OF HAWAII - FISCAL YEAR 1986

TYPE OF SPECIMEN	NUMBER OF SPECIMENS			NUMBER OF EXAMINATIONS
	Received	Positive	Negative	
Complement Fixation	2,495	23	2,472	2,495
Hemagglutination-Inhibition (PHA,LA)	283	2	281	283
Hepatitis B Surface Antigen (EIA - Diagnostic)	57	1	56	66
Hepatitis B Surface Antigen (EIA - Prenatal)	152**	7	145	447
Hepatitis B Surface Antigen (EIA - Other)	263***	32	231	727
Rubella (EIA - Diagnostic)	143	8	135	143
Rubella (EIA - Screening)	213	*	*	213
TOTAL	3,606	73	3,320	4,374
Rabies (FRA)	33	0	33	33

VIRAL AND RICKETTSIAL POSITIVES a/

	NUMBER OF POSITIVES a/
Complement Fixation Antigens:	
Herpesvirus hominis	1
Measles	21
Varicella-Zoster	1
Hemagglutination-Inhibition Antigens:	
Influenza A/Philippines/2/82 (H3N2)	1
Rubella	1

Enzyme Immuoassay (EIA)	NUMBER OF POSITIVES
Hepatitis B Surface Antigen	40 c/
Rubella	8 b/

* Screening test for Rubella, Positive and Negative Terminology not applicable in this context.

** Includes 34 specimens from prenatal bank.

*** Includes 152 Public Health Nurses, 6 Epidemiology Branch staff members, and 12 DOH Laboratory staff members.

a/ Paired sera showing four-fold or greater rise in antibody titer..

b/ Paired sera whose Enzyme Immunoassay Ratio indicates recent infection to agent.

c/ Repeatably reactive to Hepatitis B surface antigen using monoclonal antibody. (includes 3 sera that are Hepatitis B surface antigen POSITIVE).

PUBLIC HEALTH NURSING BRANCH

SUMMARY

Primary prevention and health promotion are the foundation of public health nursing practice. To accomplish this goal, public health nurses provide generalized comprehensive and coordinated nursing services to individuals, families, and groups at their place of residence, in private and parochial schools, adult residential care homes, day care centers, clinics, work sites, and community facilities. The nursing staff participates actively and collaboratively as members of multidisciplinary health care teams to meet the consumers' health needs. As public health nurses provide nursing care in the community, their foremost concern is the attainment and maintenance of optimal health states of Hawaii's residents.

Case Management Coordination Projects on all neighbor islands and Central and Windward Oahu areas continue to reach out to the frail, vulnerable aged population. A single access to services system for the elderly was firmly established on Hawaii when Public Health Nursing Branch contracted with the Community Long Term Care Program, Department of Social Services and Housing, to provide long term care planning, management, and coordination services for the island's Medicaid eligible residents.

Table 1 shows the number of cases served and the total visits made statewide. Over the past year, a 7% increase in the caseload from 33,934 to 34,166 cases is noted. Case increases continue with the infant and preschool children, adult health, developmentally disabled children, tuberculosis nondiagnosed, and selected chronic diseases. Visits increased by 4% from 121,308 to 125,922 visits. Except for school age children, tuberculosis and emotional problems, visitations in all categories increased over the previous fiscal year. More visits per case were made to those with disabilities and/or pathological conditions over those who received Health Guidance services only.

Table 2 represents the type of clinic, the number of clinics, and the total number of clinic attendance statewide. There was a 3% increase in the number of clinic sessions over the past year from 4,352 to 4,478 sessions. The clinic attendance increased by 6.2% from 98,691 to 104,842. Attendance at these clinics is arranged to provide clients the opportunity to receive in-depth consultation and education services.

Table 3 shows public health nursing services provided to private and parochial schools and home visits made to school age children. There was a decrease in school visits by 76% from 2,390 visits to 577 visits over the past year. Home visits to school age children decreased by 6.4% from 15,478 to 14,478 visits. Outbreaks of pertussis, rubella, and measles were less prevalent in fiscal year 1986.

Table 4 shows the visits made to preschool age children. Data shows that 31.7% of all visits are primarily for this age group. Clinic data displayed on Table 2, likewise, shows 45.4% of all clinic sessions to be for well-children services.

Table 5 displays number of visits made to care homes and all visits to those age 60 years and over. There was a 13.0% decrease in the number of care home visits from 574 to 499 visits for fiscal year 1986. Visits to the elderly increased by 93% from 11,835 to 22,847 visits. As the aged population increases, nursing intervention services will show a concomitant increase.

Table 6 provides Child Health Conference data by type of clinic, number of sessions, and attendance by counties and state. There was an increase of 7.9% in clinic sessions from 1,882 in 1985 to 2,031 in fiscal year 1986. There also was an increase in the attendance of 23.7% from 21,448 to 26,536 from the previous year.

Table 7 represents the number of group education sessions and attendance to these sessions. There were 424 sessions of various topic areas attended by 8,489 individuals.

TABLE 1

CASES ADMITTED TO PUBLIC HEALTH NURSING SERVICE AND VISITS MADE BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Type of Nursing Services	State		Honolulu		Hawaii		Kauai		Maui	
	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/	Cases a/	Visits b/
Maternity	887	2,500	551	1,855	85	151	128	203	123	291
Infant and Preschool Child Health	15,686	53,847	8,573	36,244	3,352	7,442	1,104	2,927	2,657	7,234
School Aged Child c/	1,946	5,266	1,271	3,570	351	740	93	265	231	691
Adult and Elderly Health	3,586	8,985	1,984	5,321	99	220	1,014	2,110	488	1,334
Tuberculosis d/	7,052	20,124	3,981	9,774	1,118	4,666	653	1,265	1,300	4,419
Hansen's Disease	569	2,094	266	1,158	81	282	16	197	206	457
Other Communicable Disease d/	206	327	53	115	95	113	9	12	49	87
Developmentally Disabled Children	694	7,269	487	5,242	95	1,078	19	154	93	795
Other Handicapped Chidlren	1,030	10,683	567	6,843	248	2,119	74	643	141	1,078
Chronic Diseases	2,122	10,530	1,147	4,575	350	2,959	142	377	483	2,619
Emotional Problems	267	1,141	214	797	25	238	5	19	23	87
All Others	121	627	68	336	20	88	4	6	29	197
Not Home/Not Found	--	2,529	--	2,072	--	222	--	41	--	194
TOTALS	34,166	125,922	19,162	77,902	5,919	20,318	3,261	8,219	5,823	19,483

a/ Cases: Individuals admitted to nursing service for a particular condition.
b/ Visits: Personal contacts with health content.
c/ Health Guidance Only. Excludes visits to school children in other diagnostic categories.
d/ Includes diagnosed cases and contacts.

TABLE 2

CLINICS CONDUCTED BY PUBLIC HEALTH NURSING SERVICE BY TYPE OF CLINIC, NUMBER OF SESSIONS AND ATTENDANCE BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Type of Clinic	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Well Child	2,031	26,536	914	13,684	621	7,134	131	1,372	365	4,346
School	45	999	12	489	4	87	5	53	24	370
Day Care	3	13	1	6	2	7	--	--	--	--
Adult and Elderly Health	467	6,142	176	3,491	10	62	217	1,407	64	1,182
Cardiac a/	26	291	4	30	12	170	5	61	5	30
Neurology a/	17	99	2	11	12	77	--	--	3	11
Other Crippled Children Including Pediatric a/	8	100	1	32	7	68	--	--	--	--
Tuberculosis Testing	1,514	64,275	739	40,141	286	9,234	193	6,231	296	8,669
Tuberculosis Diagnosis and Treatment	177	2,803	--	--	25	47	76	681	76	2,075
Leprosy	26	354	13	146	8	93	--	--	5	115
Other Communicable Disease	15	156	1	19	10	73	--	--	4	64
Immunization	73	1,507	27	668	33	599	3	47	10	193
Blood Pressure Screening	42	1,240	6	55	3	61	33	1,124	--	--
Others	34	327	19	196	14	110	--	--	1	21
TOTALS	4,478	104,842	1,915	58,968	1,047	17,822	663	10,976	853	17,076

a/ See Crippled Children Data

TABLE 3

PUBLIC HEALTH NURSING SERVICE TO SCHOOLS AND SCHOOL AGE CHILDREN BY COUNTY a/
STATE OF HAWAII

FISCAL YEAR 1986

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Schools b/	577	299	47	126	105
Visits to School Age Children c/	14,487	9,136	2,536	751	2,064
TOTALS	15,064	9,435	2,583	877	2,169

a/ Excludes public schools.
b/ All service programs.
c/ Outside of school environment.

TABLE 4

PUBLIC HEALTH NURSING SERVICES IN DAY CARE CENTERS AND PRESCHOOL AGE CHILDREN BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Day Care Centers	426	288	48	20	70
Visits to Preschool Age Children	39,392	27,448	5,119	1,968	4,857
TOTALS	39,818	27,736	5,167	1,988	4,927

TABLE 5

PUBLIC HEALTH NURSING SERVICE TO ADULT RESIDENTIAL CARE HOMES AND ELDERLY BY COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Type of Activity	State	Honolulu	Hawaii	Kauai	Maui
Visits to Adult Residential Care Homes	499	365	37	24	73
Visits to Elderly (60 years and over) a/	22,847	11,237	3,245	3,584	4,781
TOTALS	23,346	11,602	3,282	3,608	4,854

a/ Addressses only Health Guidance and Chronic Disease categories.

TABLE 6

CHILD HEALTH CLINICS BY TYPE OF CLINIC, NUMBER OF SESSIONS, ATTENDANCE AND COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Type of Clinics	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Medical	493	9,173	336	6,251	97	1,931	28	534	32	457
Nursing	1,538	17,363	578	7,433	524	5,203	103	838	333	3,889
TOTALS	2,031	26,536	914	13,684	621	7,134	131	1,372	365	4,346

TABLE 7

GROUP EDUCATION SESSIONS CONDUCTED BY PUBLIC HEALTH NURSING SERVICE BY SUBJECT, NUMBER OF SESSIONS, ATTENDANCE AND COUNTY
STATE OF HAWAII

FISCAL YEAR 1986

Subject	State		Honolulu		Hawaii		Kauai		Maui	
	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance	Session	Attendance
Maternal and Child Health	28	327	9	152	4	60	14	104	1	11
Public Health/ Public Health Nursing	15	259	2	11	3	70	9	168	1	10
Chronic Disease	12	273	7	168	4	45	--	--	1	60
Communicable Disease	28	273	23	206	4	57	1	10	--	--
Nutrition	35	466	31	360	3	42	--	--	1	64
Family Planning	2	27	2	27	--	--	--	--	--	--
School Health	19	470	15	379	3	70	--	--	1	21
Adult Health	17	823	17	823	--	--	--	--	--	--
Wellness	20	311	18	236	2	75	--	--	--	--
Geriatrics	206	4,528	20	413	4	28	182	4,087	--	--
Hypertension--Firefighters	4	54	4	54	--	--	--	--	--	--
Other	38	678	24	461	4	36	2	19	8	162
TOTALS	424	8,489	172	3,290	31	483	208	4,388	13	328

PUBLIC HEALTH NURSING BRANCH
STATE HYPERTENSION PROJECT

SUMMARY

The mission of the State Hypertension Project of the Public Health Nursing Branch is "to increase the number of known hypertensives with controlled blood pressure, and thus to prolong the lives of Hawaii's people." Project services include:

1. Coordination of blood pressure control services statewide.

2. Training, education, and consultation.

3. Implementation and management of a data collection systems with all participating agencies.

4. Direct outreach to and follow up with at-risk target groups.

From the Project's beginning in 1980, there have been minimal efforts toward screening to avoid duplication of existing services. But through its coordination focus, the Project has worked closely with existing screening programs and in developing new programs as needed, assisting them in selecting targeted screening sites targeted to high risk populations, and promoting the use of standard procedures and referral guidelines. The Project has trained firefighters and volunteer groups to provide blood pressure screening. Following community screenings by participating agencies, the Project provides follow-up services (with the assistance of public health nurses in collaboration with the program through the Honolulu Fire Department) for all persons found to have elevated blood pressures. As a result of coordinating these screening programs with Project and PHN follow-up efforts, many persons with high blood pressure have returned to their physicians and resumed treatment while others have become newly diagnosed and started on treatment.

Fiscal year 1986 saw the establishment of the Hawaii State Coordinating Council on High Blood Pressure Control, as well as initial plans for coordinating councils on Hawaii, Maui, and Kauai. The general goals of the State Coordinating Council are:

1. To establish, maintain, and update blood pressure screening and hypertension control standards in the State.

2. To serve as a communication network.

3. To assist in the dissemination of blood pressure information and standards.

4. To develop a plan and facilitate the implementation of the 1990 Objectives for High Blood Pressure Control.

Table 1 shows the results of approximately 35 agencies working in collaboration with the State Hypertension Project. 14,273 blood pressure tests were provided screening 11,703 individuals, 4,500(e) of whom received follow-up outreach from the Project. Firefighters trained by the Project staff provided a total 5,699 blood pressure tests, screening a total of 2,249(e) individuals of which 159 had

severe elevations requiring immediate follow up to physicians by public health nurses. By the end of FY 86, firefighters at all 39 stations on Oahu, 5 on Maui, 2 on Molokai, and 5 stations on Hawaii provided free blood pressure screening to the public. The program will expand on Hawaii and to Kauai in 1987.

Table 2 summarizes the prevalence, treatment, and control data from the 11,703 individuals screened. The prevalence of hypertension in Hawaii's adults in estimated to be between 30 to 35%. Of known hypertensives who participate in varied community screenings, 67.9% were on treatment for their high blood pressure and 39.6% had a controlled blood pressure of less than 140/90 at the time the blood pressure was taken.

Table 3 reflects the training and education activities of the project reaching health professionals, the lay public, and firefighters who were also certified as blood pressure screeners. A total of 2,957 individuals were reached in 92 group sessions or events.

An extensive worksite program was initiated this year which included carefully targeted blood pressure screenings with intensive follow up, individual counseling, and group education. All data needs are currently being reviewed for revisions; and, therefore, in-depth tables are unavailable at this time.

TABLE 1

GENERAL BLOOD PRESSURE SCREENING AND FOLLOW UP SERVICES
PROVIDED BY PARTICIPATING AGENCIES

PUBLIC HEALTH NURSING SERVICE -- STATE HYPERTENSION PROJECT
STATE OF HAWAII

FISCAL YEAR 1986

Number of Blood Pressure Tests Given	Number of Individuals Served	Number of Receiving Follow Up
14,273	11,703	4,500 e

TABLE 2

BLOOD PRESSURE CONTROL STATUS OF HAWAII'S PEOPLE

PUBLIC HEALTH NURSING SERVICE -- STATE HYPERTENSION PROJECT

FISCAL YEAR 1986

Prevalence of Hypertension	34.6%
Hypertensives on Treatment	67.9%
Hypertensives with Controlled Blood Pressure	39.6%

Table 3

PUBLIC HEALTH NURSING SERVICE -- STATE HYPERTENSION PROJECT

FISCAL YEAR 1986

	Number of Groups Reached	No. Individuals Reached
Training and Education		
Professional Education	19	361
Public Education	19	801
Health Fairs	8	1,163
Blood Pressure Certification		
Firefighters	30	538
Other	16	94
TOTALS	92	2,957

DEPARTMENT OF HEALTH ANNUAL REPORT

SUMMARY

Nutrition is important in the promotion of health, in the prevention of disease and in improving the quality of life. The goal of the Nutrition Branch is to promote optimal nutritional status and to reduce the risk of disease associat with diet through education, early detection and intervention.

Three major categories of services are provided by the Nutrition Branch:

1) Nutrition education for the public.
2) Consultations to agencies and individuals and inspections of hospitals and other facilities, and
3) Nutrition screening and assessment.

The preventive aspects of nutrition are emphasized. Accurate, up-to-date nutrit information is provided through pamphlets, newsletters and news articles, talks to community and student groups, workshops, exhibits at health fairs, T.V. and radio programs, and telephone calls. Table I shows an 8% increase in 1986 in numbers reached through talk and workshops.

Nutrition consultations and direct services are provided to programs within the department, other governmental agencies, community and professional groups and the general public. The public Health Nutritionists provide consultation and licensure services to hospitals, skilled nursing and intermediate care facilities, special treatment facilities and adult residential care homes to assist them in meeting dietary standards according to State and Federal regulati

The Special Supplemental Food Program for Women, Infants and Children (WIC Program) funded by the United States Department of Agriculture is administered by the Nutrition Branch. Nutrition screening and assessment, nutrition educatio and nutritious food are provided to low income pregnant women, nursing mothers, infants and children up to age 5, who are at nutritional risk. In 1986, the WIC Program provided food vouchers to an average of 8,826 participants each month. This was an increase of 33% in the number of participants from 6,624 to 8,826. Nutrition assessment and diet counseling is ongoing and the total number of contacts was 62,616.

The WIC Program is participating in the Pediatric Nutrition Surveillance in cooperation with the Centers for Disease Control. Table II summarizes the prevalence of abnormal conditions in infants and children from birth to age 5.

TABLE I
NUTRITION BRANCH SERVICES
STATE OF HAWAII: 1986

Type of Nutrition Services	Number of Sessions	Number Reached or Participants
Nutrition Education		
Talks to community groups	37	689
Talks to students	47	1,502
Talks to senior citizens groups	23	802
Department of Health groups	15	205
Workshops	25	613
Radio and TV	19	
Health Fairs	14	
Nutrition Branch leaflets and booklets produced and distributed		119,110

Consultations and Inspections	Number
Care Homes	
Inspections	309
Consultations and Visits	148
Hospitals, Skilled Nursing Facilities and Intermediate Care Facilities	
Medicare Certifications	40
Consultations	20
Special Treatment Facilities	
Inspections	11
Consultations and Visits	3
Day Care Centers	
Consultations	29
Other Agencies and Individuals	
Consultations	1,509
Department of Health	
Consultations	304

Nutrition Assessment and Diet Counseling	Number Reached
Special Supplement Food Program for Women, Infants and Children (WIC)	62,615*

*Participants receive nutrition assessment and diet counseling three or more times a year.

TABLE II
PEDIATRIC NUTRITION SURVEILLANCE
HAWAII WIC PROGRAM

CLINIC: ALL CLINICS IN STATE COUNTY: ALL COUNTIES IN STATE

PREVALENCE OF ABNORMAL CONDITIONS	EVALUATED		WITH ABNORMALITY
	Number Included in Analysis	% This year	% Entire last yr.
A. Linear Growth retardation (Ht. for age <5th PCTL. OR > - 1.6 SD.)	8,095	16.1	19.2
B. Overweight (Wt. for Ht.> 95th PCTL. or > + 1.6 SD.)	8,095	8.7	10.2
C. Underweight (Wt. for Ht. <5th PCTL. OR <-1.6 SD.)	8,095	5.2	6.4
D. Anemia** (HGB. for age < 5th PCTL. OR <-1.6 SD.)	5,896	2.9	2.8
E. Anemia** (HCT. for age <5th PCTL. OR < -1.6 SD.)	3,177	5.8	4.1
F. Low birth weight (Birth Weight<5th PCTL. or <2501 gm.)	2,308	13.1	20.1

** REFERENCE DERIVED FROM HANES I DATA

HOSPITAL AND MEDICAL FACILITIES BRANCH

The Hospital and Medical Facilities Branch of the Medical Health Services Division focuses on the quality of care delivered in health facilities and on the number of facilities required to provide a satisfactory level of health care. Regulations for the various types of facilities are prepared and adopted following public hearings, and revisions of regulations are an ongoing policy. Regulations are enforced by inspections, surveys and consultations performed by specially trained surveyors composed of multi-disciplinary specialists. Licensing of facilities and certification for participation in the Federal Medicaid and Medicare Programs are a major function of the Branch. Facilities which are included in the licensing and certification process include, in the order of intensity of care necessary: Acute Hospitals, Skilled Nursing Facilities, Intermediate Care Facilities, and "mixed" or "swing" bed facilities where intermediate care and skilled nursing beds are located in one facility and used as necessary depending on the condition of the patient. (Acute Hospitals may have distinct parts allocated to skilled nursing and intermediate care beds.) Facilities for Mentally Retarded, Adult Residential Care Homes, Freestanding Surgical Outpatient Facilities, Home Health Agencies, End-Stage Renal Disease Facilities, Independent Laboratories, and Special Treatment Facilities, primarily for the treatment of alcohol and drug abuse, are also licensed by this Branch. Tables showing the number of facilities and beds under each category, State of Hawaii, are given under the State Health Planning Section of the Annual Report. A table showing Adult Residential Care Homes by island is given in this section.

Table 1

NUMBER AND TYPE OF FACILITY BY ISLAND

STATE OF HAWAII, 1986

Type of Facility	State Total	Oahu	Hawaii	Kauai	Lanai	Maui	Molokai
Hospitals	28	15	5	3	1	3	1
Skilled Nursing/ Intermediate Care	31	23	6	2			
Intermediate Care Facilities/MR	10	9				1	
Special Treatment Facilities	15	11	1	1		2	
Independent Laboratories	31	22	3			6	
Home Health Agencies	16	8	4	1	1	1	1
End-Stage Renal Disease	10	6	2	1		1	
Adult Residential Care Homes	622	480	65	46		18	13

Table 2

BED COUNT IN FACILITIES BY ISLAND

STATE OF HAWAII, 1986

Type of Facility	State Total	Oahu	Hawaii	Kauai	Lanai	Maui	Molokai
Hospitals	2911	2350	261	125	6	153	16
Skilled Nursing/ Intermediate Care	3068	2028	422	263	8	347	14
Intermediate Care Facilties/MR	265	257				8	
Special Treatment Facilities	516	434	14	12		56	
Adult Residential Care Homes	2982	2341	254	246		69	72

CALENDAR YEAR 1986

CARE HOMES BY ISLANDS, TYPE AND BEDS

STATE OF HAWAII

	STATE TOTAL			OAHU			HAWAII			KAUAI			MAUI			MOLOKAI		
	TYPE II	TYPE I	Total	TYPE II	TYPE I	Total	TYPE II	TYPE I	Total	TYPE II	TYPE I	Total	TYPE II	TYPE I	Total	TYPE II	TYPE I	Total
NUMBER OF FACILITIES	17	633	650	11	496	507	1	63	64	4	44	48	0	18	18	1	12	13
NUMBER OF BEDS	540	2547	3087	406	2040	2446	13	246	259	107	143	250	0	69	69	14	49	63

NOTE: TYPE II - More than 5 beds

TYPE I - Five beds or less

MENTAL HEALTH DIVISION

MENTAL HEALTH DIVISION

The Mental Health Division provides both inpatient and outpatient services for a wide range of problems affecting disparate populations. The utilization patterns of services provide significant leads to understanding the nature, severity, and determinants of mental illness.

It is important to note that the tables in this year's statistical report as well as prior years, with the exception of 1984, are summarized by calendar year. The 1984 annual statistical data was summarized by fiscal year because of a one time change necessitated by a database conversion from the batch oriented Multi-State Information System (MSIS) to the online, network oriented Mental Health Field Assessment and Statistical Information System (MFASIS) which was completed in 1985.

The tables from calendar year 1985 and on have been completely redesigned and are different from that of all previously publishsed annual reports. The 1974 through 1981 reports examined demographic statistical information related to diagnosis, and the 1982 through 1984 reports displayed demographic information related to problems on admission.

Table 1 shows the Mental Health Division Movement Summary for the period 1973 - 1986 of actives, admissions, terminations, and unduplicated counts of clients.

Table 2 represents the total active clients as of the end of the year by age and Community Mental Health Centers.

Table 3 displays figures on admissions for the year by age and Community Mental Health Centers.

Table 4 displays demographic characteristics of clients served by ethnicity, age and sex for the entire year.

Table 5 shows demographic characteristics of clients admitted, active, and discharged for the year broken down by ethnicity.

Table 6 represents the referral source of admissions during the year by referral source, and the number of new admissions and readmissions.

Table 7 shows the reasons why a client was discharged.

Mental Health Field Assessment and Statistical Information System

MENTAL HEALTH DIVISION MOVEMENT SUMMARY, 1973 - 1986
TABLE 1

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984*	1985	1986
Unduplicated Count of Patients Served	9851	10522	11101	11935	11806	11642	10713	10625	10689	10312	9970	9724	8891	8342
Actives	6052	6500	7090	6979	6905	6886	6392	6328	6642	6287	6022	5692	6328	5852
Admissions	5220	5073	5233	5533	5453	5441	4564	4696	4947	4885	4761	4307	3933	3826
Terminations	4368	4618	4633	5684	5529	5522	5057	4759	5062	5155	5030	4887	4221	3725

*For the Fiscal Year 1984 (7/1/83 to 6/30/84).

Mental Health Field Assessment and Statistical Information System

AGE SUMMARY REPORT
DEMOGRAPHIC CHARACTERISTICS OF ACTIVE CLIENTS BY CENTER
TABLE 2*

DIVISION

As of 12/31/86

	Oahu-Other Services		Central Oahu CMHC		Windward Oahu CMHC		Leeward Oahu CMHC		Diamond Head CMHC		Kalihi-Palama CMHC		Maui CMHC		East Hawaii CMHC	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/
AGE																
0 - 11	1	0.2	62	11.6	125	23.3	42	7.8	28	5.2	69	12.9	65	12.1	66	12.3
12 - 17			40	7.2	55	9.9	40	7.2	50	9.0	58	10.4	67	12.0	98	17.6
18 - 39	533	18.8	128	4.5	165	5.8	186	6.6	289	10.2	221	7.8	275	9.7	213	7.5
40 - 59	105	7.5	89	6.3	123	8.8	119	8.5	170	12.1	156	11.1	140	10.0	158	11.2
60 and over	4	0.8	38	7.4	41	8.0	81	15.9	82	16.0	53	10.4	49	9.6	65	12.7
Unknown					1	7.7			1	7.7	1	7.7				
Total	643	11.0	357	6.1	510	8.7	468	8.0	620	10.6	558	9.5	596	10.2	600	10.3

	West Hawaii CMHC		Kauai CMHC		North Hawaii CMHC		Children's Branch		Hawaii State Hospital		Waianae CMHC		Other		Total	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% b/
AGE																
0 - 11			14	2.6			13	2.4	6	1.1	27	5.0	18	3.4	536	9.2
12 - 17	3	0.5	43	7.7	4	0.7	4	0.7	26	4.7	44	7.9	25	4.5	557	9.5
18 - 39	247	8.7	195	6.9	38	1.3			152	5.4	138	4.9	50	1.8	2830	48.4
40 - 59	94	6.7	100	7.1	29	2.1			58	4.1	43	3.1	21	1.5	1405	24.0
60 and over	28	5.5	32	6.3	10	2.0			10	2.0	10	2.0	8	1.6	511	8.7
Unknown	1	7.7											9	69.2	13	0.2
Total	373	6.4	384	6.6	81	1.4	17	0.3	252	4.3	262	4.5	131	2.2	5852	100.0

* Numbers may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

AGE SUMMARY REPORT
DEMOGRAPHIC CHARACTERISTICS OF ADMISSION BY CENTERS
TABLE 3*

DIVISION

From: 01/01/86 To: 12/31/86

	Oahu-Other Services		Central Oahu CMHC		Windward Oahu CMHC		Leeward Oahu CMHC		Diamond Head CMHC		Kalihi-Palama CMHC		Maui CMHC		East Hawaii CMHC	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/
AGE																
0 - 11			68	13.5	117	23.2	45	8.9	52	10.3	62	12.3	36	7.1	41	8.1
12 - 17	63	12.4	51	10.1	44	8.7	34	6.7	56	11.0	46	9.1	33	6.5	44	8.7
18 - 39	124	6.2	132	6.6	88	4.4	91	4.5	263	13.1	216	10.7	182	9.1	69	3.4
40 - 59	21	3.2	28	4.3	24	3.7	31	4.7	85	13.0	69	10.6	67	10.2	16	2.4
60 and over	9	6.3	7	4.9	3	2.1	7	4.9	22	15.4	17	11.9	8	5.6	6	4.2
Unknown			1	14.3	1	14.3			1	14.3	1	14.3	1	14.3		
Total	217	5.7	287	7.5	277	7.2	208	5.4	479	12.5	411	10.7	327	8.5	176	4.6

	West Hawaii CMHC		Kauai CMHC		North Hawaii CMHC		Children's Branch		Hawaii State Hospital		Waianae CMHC		Other		Total	
	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% a/	#	% b/
AGE																
0 - 11			13	2.6			18	3.6	30	6.0	10	2.0	12	2.4	504	13.2
12 - 17			24	4.7	6	1.2	2	0.4	75	14.8	13	2.6	16	3.2	507	13.3
18 - 39	130	6.5	149	7.4	40	2.0			477	23.7	18	0.9	32	1.6	2011	52.6
40 - 59	41	6.3	74	11.3	17	2.6			169	25.8	2	0.3	10	1.5	654	17.1
60 and over	9	6.3	17	11.9	6	4.2			28	19.6	2	1.4	2	1.4	143	3.7
Unknown	1	14.3			1	14.3									7	0.2
Total	181	4.7	277	7.2	70	1.8	20	0.5	779	20.4	45	1.2	72	1.9	3826	100.0
Unduplicated total															3292	

* Numbers may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

ETHNIC SUMMARY REPORT BY AGE AND SEX
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS SERVED BY AGE AND SEX
TABLE 4*

DIVISION

Period: 01/01/86 thru: 12/31/86

ETHNICITY	0 --- 11						12 --- 17						18 --- 39					
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL	
	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/
Alaskan Native	1	100.0			1	12.5			1	100.0	1	12.5	2	100.0			2	25.0
American Indian	4	66.7	2	33.3	6	22.2	1	50.0	1	50.0	2	7.4	12	75.0	4	25.0	16	59.3
Black	20	87.0	3	13.0	23	16.0	13	76.5	4	23.5	17	11.8	43	51.8	40	48.2	83	57.6
Cambodian	1	100.0			1	6.3	2	100.0			2	12.5	2	22.2	7	77.8	9	56.3
Caucasian	179	73.7	64	26.3	243	11.0	129	63.2	75	36.8	204	9.2	617	51.7	576	48.3	1193	53.9
Chinese	12	75.0	4	25.0	16	8.1	4	30.8	9	69.2	13	6.6	37	41.1	53	58.9	90	45.7
Cuban													2	66.7	1	33.3	3	100.0
Fijian	2	66.7	1	33.3	3	50.0							2	100.0			2	33.3
Filipino	41	83.7	8	16.3	49	6.0	59	65.6	31	34.4	90	11.0	284	67.6	136	32.4	420	51.5
Hawaiian	16	94.1	1	5.9	17	9.1	11	61.1	7	38.9	18	9.7	59	60.2	39	39.8	98	52.7
Japanese	40	78.4	11	21.6	51	4.5	39	58.2	28	41.8	67	5.9	285	63.1	167	36.9	452	39.8
Korean	6	100.0			6	5.6	5	55.6	4	44.4	9	8.4	28	54.9	23	45.1	51	47.7
Laotian													4	100.0			4	80.0
Mexican	3	100.0			3	7.5	3	42.9	4	57.1	7	17.5	14	70.0	6	30.0	20	50.0
Micronesian							1	100.0			1	11.1	6	85.7	1	14.3	7	77.8
Mixed	108	74.5	37	25.5	145	28.2	82	63.6	47	36.4	129	25.1	114	62.3	69	37.7	183	35.6
Okinawan	2	50.0	2	50.0	4	9.5	1	100.0			1	2.4	16	69.6	7	30.4	23	54.8
Part Hawaiian	159	80.3	39	19.7	198	18.3	110	64.0	62	36.0	172	15.9	307	60.8	198	39.2	505	46.6
Portuguese	22	81.5	5	18.5	27	7.6	14	50.0	14	50.0	28	7.9	96	65.8	50	34.2	146	41.4
Puerto Rican	10	62.5	6	37.5	16	11.9	10	50.0	10	50.0	20	14.8	41	70.7	17	29.3	58	43.0
Samoan	10	90.9	1	9.1	11	10.1	13	65.0	7	35.0	20	18.3	42	65.6	22	34.4	64	58.7
Tongan			1	100.0	1	20.0							4	100.0			4	80.0
Vietnamese	2	100.0			2	10.0	1	50.0	1	50.0	2	10.0	8	66.7	4	33.3	12	60.0
Other Asian													1	33.3	2	66.7	3	100.0
Other Hispanic	4	100.0			4	14.3	1	100.0			1	3.6	7	46.7	8	53.3	15	53.6
Other Pac Isle	1	50.0	1	50.0	2	33.3	1	100.0			1	16.7			1	100.0	1	16.7
Other + Unknown	96	68.6	44	31.4	140	5.9	178	71.2	72	28.8	250	10.6	1013	71.4	405	28.6	1418	60.0
TOTAL	739	76.3	230	23.7	969	10.1	678	64.3	377	35.7	1055	11.0	3046	62.4	1836	37.6	4882	51.0
Unduplicated Total	685	75.2	226	24.8	911	10.9	633	64.3	352	35.7	985	11.8	2556	61.3	1615	38.7	4171	50.0

*Numbers may not add up due to rounding.
a/ Percentage of row within age group.
b/ Percentage of row total.
c/ Percentage of males/females for this ethnic total.
d/ Percentage of column total.
e/ Less than .1 percent.

Mental Health Field Assessment and Statistical Information System

ETHNIC SUMMARY REPORT BY AGE AND SEX
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS SERVED BY AGE AND SEX
TABLE 4*
(continued)
DIVISION

Period: 01/01/86 thru: 12/31/86

ETHNICITY	40 --- 59						60+						TOTAL					
	MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL		MALE		FEMALE		TOTAL	
	#	% a/	#	% a/	#	% b/	#	% a/	#	% a/	#	% b/	#	% c/	#	% c/	#	% d/
Alaskan Native	2	66.7	1	33.3	3	37.5	1	100.0			1	12.5	6	75.0	2	25.0	8	0.1
American Indian	1	50.0	1	50.0	2	7.4			1	100.0	1	3.7	18	66.7	9	33.3	27	0.3
Black	12	70.6	5	29.4	17	11.8	2	50.0	2	50.0	4	2.8	90	62.5	54	37.5	144	1.5
Cambodian	2	66.7	1	33.3	3	18.8			1	100.0	1	6.3	7	43.8	9	56.3	16	0.2
Caucasian	204	44.3	256	55.7	460	20.8	47	41.2	67	58.8	114	5.1	1176	53.1	1038	46.9	2214	23.1
Chinese	27	50.0	27	50.0	54	27.4	9	37.5	15	62.5	24	12.2	89	45.2	108	54.8	197	2.1
Cuban													2	66.7	1	33.3	3	¢/
Fijian	1	100.0			1	16.7							5	83.3	1	16.7	6	0.1
Filipino	101	50.5	99	49.5	200	24.5	36	64.3	20	35.7	56	6.9	521	63.9	294	36.1	815	8.5
Hawaiian	19	47.5	21	52.5	40	21.5	7	53.8	6	46.2	13	7.0	112	60.2	74	39.8	186	1.9
Japanese	148	40.7	216	59.3	364	32.0	83	40.9	120	59.1	203	17.9	595	52.3	542	47.7	1137	11.9
Korean	16	50.0	16	50.0	32	29.9	4	44.4	5	55.6	9	8.4	59	55.1	48	44.9	107	1.1
Laotian			1	100.0	1	20.0							4	80.0	1	20.0	5	0.1
Mexican	8	88.9	1	11.1	9	22.5	1	100.0			1	2.5	29	72.5	11	27.5	40	0.4
Micronesian							1	100.0			1	11.1	8	88.9	1	11.1	9	0.1
Mixed	30	57.7	22	42.3	52	10.1	3	60.0	2	40.0	5	1.0	337	65.6	177	34.4	514	5.4
Okinawan	7	70.0	3	30.0	10	23.8			4	100.0	4	9.5	26	61.9	16	38.1	42	0.4
Part Hawaiian	84	48.6	89	51.4	173	16.0	13	37.1	22	62.9	35	3.2	673	62.1	410	37.9	1083	11.3
Portuguese	57	51.8	53	48.2	110	31.2	18	42.9	24	57.1	42	11.9	207	58.6	146	41.4	353	3.7
Puerto Rican	19	57.6	14	42.4	33	24.4	4	50.0	4	50.0	8	5.9	84	62.2	51	37.8	135	1.4
Samoan	7	58.3	5	41.7	12	11.0	1	50.0	1	50.0	2	1.8	73	67.0	36	33.0	109	1.1
Tongan													4	80.0	1	20.0	5	0.1
Vietnamese	3	100.0			3	15.0			1	100.0	1	5.0	14	70.0	6	30.0	20	0.2
Other Asian													1	33.3	2	66.7	3	¢/
Other Hispanic	1	20.0	4	80.0	5	17.9	1	33.3	2	66.7	3	10.7	14	50.0	14	50.0	28	0.3
Other Pac Isle			1	100.0	1	16.7			1	100.0	1	16.7	2	33.3	4	66.7	6	0.1
Other + Unknown	245	56.5	189	43.5	434	18.4	59	48.0	64	52.0	123	5.2	1591	67.3	774	32.7	2365	24.7
TOTAL	994	49.2	1025	50.8	2019	21.1	290	44.5	362	55.5	652	6.8	5747	60.0	3830	40.0	9577	100.0
Unduplicated Total	835	49.3	858	50.7	1693	20.3	256	44.0	326	56.0	582	7.0	4965	59.5	3377	40.5	8342	100.0

*Numbers may not add up due to rounding.
a/ Percentage of row within age group.
b/ Percentage of row total.
c/ Percentage of males/females for this ethnic total.
d/ Percentage of column total.
¢/ Less than .1 percent.

Mental Health Field Assessment and Statistical Information System

ETHNIC SUMMARY REPORT
DEMOGRAPHIC CHARACTERISTICS OF CLIENTS ADMITTED, ACTIVE, AND DISCHARGED
TABLE 5*

DIVISION

From: 01/01/86 To: 12/31/86

Ethnic Group	Carryover		New Admits		Readmits		Discharge		Net Total		Total	
	#	% a/	#	% a/	#	% a/	#	% b/	#	% c/	#	% c/
Alaskan Native	3	37.5	5	62.5			1	12.5	7	0.1	8	0.1
American Indian	14	51.9	10	37.0	3	11.1	11	40.7	16	0.3	27	0.3
Black	52	36.1	48	33.3	44	30.6	81	56.3	63	1.1	144	1.5
Cambodian	3	17.6	11	64.7	3	17.6	5	29.4	12	0.2	17	0.2
Caucasian	956	43.2	747	33.7	512	23.1	1097	49.5	1118	19.1	2215	23.1
Chinese	121	61.4	39	19.8	37	18.8	85	43.1	112	1.9	197	2.1
Cuban	1	33.3	1	33.3	1	33.3	2	66.7	1	d/	3	d/
Fijian	4	66.7	2	33.3			1	16.7	5	0.1	6	0.1
Filipino	419	51.2	189	23.1	210	25.7	324	39.6	494	8.4	818	8.5
Hawaiian	114	61.3	39	21.0	33	17.7	75	40.3	111	1.9	186	1.9
Japanese	757	66.6	148	13.0	232	20.4	346	30.4	791	13.5	1137	11.9
Korean	61	57.0	20	18.7	26	24.3	45	42.1	62	1.1	107	1.1
Laotian	2	40.0	1	20.0	2	40.0	2	40.0	3	0.1	5	0.1
Mexican	13	32.5	17	42.5	10	25.0	25	62.5	15	0.3	40	0.4
Micronesian	6	66.7	2	22.2	1	11.1	4	44.4	5	0.1	9	0.1
Mixed	244	47.4	171	33.2	100	19.4	212	41.2	303	5.2	515	5.4
Okinawan	29	69.0	3	7.1	10	23.8	15	35.7	27	0.5	42	0.4
Part Hawaiian	550	50.7	259	23.9	275	25.4	396	36.5	688	11.8	1084	11.3
Portuguese	214	60.6	62	17.6	77	21.8	130	36.8	223	3.8	353	3.7
Puerto Rican	76	56.3	29	21.5	30	22.2	48	35.6	87	1.5	135	1.4
Samoan	36	33.0	34	31.2	39	35.8	57	52.3	52	0.9	109	1.1
Tongan	1	20.0	2	40.0	2	40.0	5	100.0			5	0.1
Vietnamese	17	85.0	1	5.0	2	10.0	11	55.0	9	0.2	20	0.2
Other Asian	1	33.3	2	66.7			3	100.0			3	d/
Other Hispanic	8	28.6	14	50.0	6	21.4	8	28.6	20	0.3	28	0.3
Other Pac Isle	3	50.0	2	33.3	1	16.7	1	16.7	5	0.1	6	0.1
Other	2046	86.8	250	10.6	62	2.6	735	31.2	1623	27.7	2358	24.6
TOTAL	5751	60.1	2108	22.0	1718	17.9	3725	38.9	5852	100.0	9577	100.0
Unduplicated Total											8342	

* Numbers may not add up due to rounding.
a/ Percentage of row Carryover + New Admits + Readmits Total.
b/ Percentage of row Net Total + Discharge.
c/ Percentage of Column.
d/ Less than .1 percent.
Net Total = Carryover + New Admits + Readmits - Discharge
Total = Net Total + Discharge.

Mental Health Field Assessment and Statistical Information System

REFERRAL SOURCE OF ADMISSIONS (DUPLICATED COUNT)
TABLE 6*

DIVISION

From: 01/01/86 To: 12/31/86

REFERRAL SOURCE	New Admissions		Readmissions		Total	
	#	% a/	#	% a/	#	% b/
Community Programs						
Mental Health Center	50	23.26	165	76.74	215	56.28
Mental Health Community Program	40	57.97	29	42.03	69	18.06
Drug Treatment Program	8	61.54	5	38.46	13	3.40
Alcohol Treatment Program	11	64.71	6	35.29	17	4.45
CRSP	34	50.75	33	49.25	67	17.54
Nursing Home			1	100.00	1	0.26
Subtotal	143	37.43	239	62.57	382	*9.98*
Hospital						
General Hospital	119	36.39	208	63.61	327	55.99
Psychiatric Hospital	33	23.40	108	76.60	141	24.14
State Hospital	3	2.59	113	97.41	116	19.86
Subtotal	155	26.54	429	73.46	584	*15.26*
Private Professionals						
Psychiatric	57	52.29	52	47.71	109	40.37
Other Physician	80	85.11	14	14.89	94	34.81
Other Mental Health Professionals	39	67.24	19	32.76	58	21.48
Lawyer	7	77.78	2	22.22	9	3.33
Subtotal	183	67.78	87	32.22	270	*7.06*
Schools						
Public	280	84.08	53	15.92	333	66.60
Private	39	100.00			39	7.80
DOE Spec. Ed.	86	73.50	31	26.50	117	23.40
Community College	6	85.71	1	14.29	7	1.40
University	2	50.00	2	50.00	4	0.80
Subtotal	413	82.60	87	17.40	500	*13.07*
Individual						
Self	238	58.77	167	41.23	405	51.99
Family	179	69.38	79	30.62	258	33.12
Friend	85	85.00	15	15.00	100	12.84
Employer	8	57.14	6	42.86	14	1.80
Clergy	2	100.00			2	0.26
Subtotal	512	65.73	267	34.27	779	*20.36*

*Number may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

REFERRAL SOURCE OF ADMISSIONS (DUPLICATED COUNT)
TABLE 6*
(continued)
DIVISION

From: 01/01/86 To: 12/31/86

REFERRAL SOURCE	New Admissions		Readmissions		Total	
	#	% a/	#	% a/	#	% b/
Government Agencies						
Law Enforcement	19	50.00	19	50.00	38	4.94
Adult Court	98	27.76	255	72.24	353	45.84
Family Court	92	62.59	55	37.41	147	19.09
Correction Agency	9	22.50	31	77.50	40	5.19
Probation and Parole	33	48.53	35	51.47	68	8.83
V.A.	6	66.67	3	33.33	9	1.17
Developmental Disabilities	3	60.00	2	40.00	5	0.65
Vocational Rehabilitation	10	43.48	13	56.52	23	2.99
Public Welfare	66	78.57	18	21.43	84	10.91
Military	3	100.00			3	0.39
Subtotal	339	44.03	431	55.97	770	*20.13*
Out of State	5	71.43	2	28.57	7	*0.18*
Other	358	67.04	176	32.96	534	*13.96*
Total	2108	55.10	1718	44.90	3826	**100.00**

*Number may not add up due to rounding.
a/ Percentage of Row.
b/ Percentage of Column.

Mental Health Field Assessment and Statistical Information System

REASON FOR DISCHARGE
TABLE 7*
DIVISION

Period: 01/01/86 thru: 12/31/86

REASON FOR DISCHARGE	#	%
Treatment Completed	1718	46.1
Transferred To A)MH Program	154	4.1
Non-compliance w/ Program Rules	53	1.4
Against Clinical Advice	77	2.1
Refused Treatment	197	5.3
Patient Moved	352	9.4
Incarcerated/Hospitalized	246	6.6
No Service Within Last 60 Days	622	16.7
Disappeared--Whereabouts Unknown	58	1.6
Died	19	0.5
Othe /Missing	229	6.2
TOTAL	3725	100.0

*Numbers may not add up due to rounding.

REFUGEE SCREENING PROJECT

NARRATIVE

The Health Care for Refugees (HCFR) Project is administered by the State of Hawaii, Department of Health, and is federally-funded by the Centers for Disease Control to provide for the coordination of health, tuberculosis and dental screening to Hawaii's refugee arrivals. The Project also maintains a refugee health registry to monitor the health status of Hawaii's refugee population and to collect health data for state and federal informational purposes.

Of Hawaii's estimated 7,200 refugee population, approximately 95% have come from Southeast Asia (Vietnam, Laos or Cambodia). In 1985-86, approximately 98% of Hawaii's new refugee arrivals received health screening, and 98% of those screened had one or more health problems noted at the time of screening. Some of the more common refugee health problems included Tuberculosis (66% with positive TB skin tests, and 6.4% with positive chest x-rays), parasites (31%), dental disease (93%), anemia (27%), Hepatitis B antigenemia, skin conditions, and other less prevalent and primarily personal health problems. The HCFR Project's findings reflect those generally seen in similar refugee health screening programs across the country. The HCFR Project health care screening and referral system emphasizes the coordination of services to refugees between the Department of Health and other public and private agencies such as voluntary resettlement programs, case management services, and local private medical and dental providers.

TABLE 1

DEMOGRAPHIC BREAKDOWN OF REFUGEES ENTERING HAWAII (Primary Arrivals[a/])

July 1, 1985 - June 30, 1986

AGE (years)	Country of Origin								TOTAL	
	VIETNAM		LAOS		CAMBODIA		OTHER[b/]			
	Sex		Sex		Sex		Sex			
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	Number	Rounded off Percent
Under 1 year	3	1	1	0	0	0	0	0	5	1.7
1 - 4	9	7	3	1	0	0	0	0	20	6.8
5 - 9	14	9	8	4	1	1	0	0	37	12.5
10 - 14	12	12	4	4	0	1	1	0	34	11.5
15 - 19	25	14	4	7	0	1	0	0	51	17.3
20 - 34	30	31	9	7	0	1	1	0	79	26.8
35 - 44	9	13	1	0	1	1	0	1	26	8.8
45 - 64	10	12	6	5	1	1	0	0	35	11.9
65 or Older	3	4	0	1	0	0	0	0	8	2.7
TOTAL Number	115	103	36	29	3	6	2	1	295	
TOTAL Percent (rounded off)	39.0	34.9	12.2	9.8	1.0	2.0	0.7	0.4		100%

a/ - Primary arrivals refers to U.S. arrival via Hawaii; does not include secondary refugee arrivals from other states. Hawaii average monthly refugee arrivals for FY 1986 was 24.6 persons.

b/ - Primarily Eastern European refugees.

c/ - Estimated number of Southeast Asian refugees living in Hawaii totals 7,200 as of February 1987 (source: U.S. Office of Refugee Resettlement, February 1987).

WAIMANO
TRAINING SCHOOL
AND
HOSPITAL DIVISION

WAIMANO TRAINING SCHOOL AND HOSPITAL

SUMMARY

The population of Waimano continues to decline over the years, reflecting the emphasis on deinstitutionalization. Community placements since 1983 have been primarily to the Home & Community Based and the Community ICF-MR programs. These programs are designed to provide more support services for clients. As lower functioning residents are placed in the community, their adaptation to the new environment requires more comprehensive and intense case management, day health programs, habilitation services and respite care.

The outlook for Waimano's resident population will continue to show major declines over the next three to five years. Actual placements of residents will depend on the successful development of community programs by private providers.

Table 1 shows a population decrease of 27 residents from 360 on July 1, 1985 to 333 on June 30, 1986. The distribution of population at the end of the year shows 281 in-house, and 52 Home & Community Based Services residents. There were no new admissions. One resident was directly discharged to another facility outside of the State of Hawaii. Of the 24 community placements, 20 residents were placed in the Community ICF-MR program.

Table 2 shows the category of classification remain about the same as in previous years, with the predominance of residents in the "Profound" category.

TABLE 1
WAIMANO TRAINING SCHOOL & HOSPITAL
STATISTICAL MOVEMENT OF PATIENTS BY FISCAL YEAR
STATE OF HAWAII: FISCAL YEAR 1985-86

Waimano Population	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86
Institution								
Patients in residence at start	482	446	423	397	385	375	364	360
Patients added during the year	84	65	63	53	31	31	12	1
Admissions during the year	13	12	7	6	10	2	2	0
Returns from community placement	71	53	56	47	21	29	10	1
Patients removed from Hospital during the year	120	88	89	65	41	42	16	28
Direct discharge	5	3	2	-	2	-	-	1
Deaths in hospital	6	6	7	8	5	4	7	3
Community placements (Includes ret. to CP)	109	79	80	57	34	38	9	24
Patients in residence at end of year	446	423	397	385	375	364[a/]	360[b/]	333[c/]

[a/] Includes 16 residents in the Home and Community Based Services Program and carried as Waimano's population.
[b/] Includes 32 residents in the Home and Community Based Services Program and carried as Waimano's population.
[c/] Includes 52 residents in the Home and Community Based Services Program and carried as Waimano's population.

TABLE 2
RESIDENT POPULATION, WAIMANO, JUNE 30
DISTRIBUTION BY YEAR AND MEASURED INTELLIGENCE
STATE OF HAWAII: FISCAL YEAR 1985-86

	Resident Population on June 30							
	1979	1980	1981	1982	1983	1984	1985	1986
Total	446	423	397	385	375	364	360	333
I. Mild Educable	7	9	10	13	12	9	8	9
II. Moderate Trainable	35	30	29	26	26	33	34	29
III. Severe	65	53	53	53	59	58	61	51
IV. Profound	338	328	305	293	278	264	257	244
Borderline	-	2	-	-	-	-	-	-
Undetermined Intelligence	1	1	-	-	-	-	-	-